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Appendices A-C

APPENDIX A

PG&E's Positions on SED's Penalty Calculations

PG&E disputes SED's alleged violations, most of which lack evidentiary support, are outside the scope of the proceeding, or both.¹ PG&E has indicated in this Reply Brief that in some instances its conduct, viewed in hindsight, did not meet the expectations that PG&E sets for itself when it comes to safety.² For those reasons, PG&E believes that the fines imposed in this proceeding, if any, should not exceed \$33.636 million, which reflects SED's proposed penalties in those areas where PG&E could have done better.³ PG&E also understands that the Commission will engage in its own assessment of the recommended penalty in this case. Still, PG&E does not believe that SED has met its burden of proof with respect to the violations, and the discussion in this Appendix sets forth PG&E's position on SED's recommended penalties.⁴ While further detail is provided below, this table summarizes PG&E's position on the maximum properly calculated fine for each of SED's eight Categories of violations.

Category	SED's Recommended Fine	Maximum Properly Calculated Fine
Category 1	\$53.308 million	\$376,000
Category 2	\$16.618 million	\$0
Category 3	\$24.98 million	\$50,000
Category 4	\$8.6 million	\$0
Category 5	\$500,000	\$380,000
Category 6	\$450,000	\$0
Category 7	\$7.12 million	\$7.12 million
Category 8	\$350,000	\$0
Total	\$111.926 million	\$7.926 million

¹ PG&E OB at 41-47.

² See *supra* PG&E Reply Brief p. 1.

³ See *supra* PG&E Reply Brief pp. 7-10.

⁴ See *infra* pp. A-2 to A-14.

A. PG&E Disagrees With SED’s Methodology for Calculating Penalties.

SED has grouped its alleged violations into eight broad categories (*i.e.*, Category 1, Category 2, etc.),⁵ and cites multiple alleged violations within each category. Although SED has not included a final tally of the total number of alleged violations, PG&E submits that SED’s methodology for counting violations is frequently in error and, as a consequence, overstates the number of violations and the resulting penalties.

1. The Alleged Category 1 Violations Are One-Time Events, Not Continuing Violations.

SED alleges that nearly all of the incidents it places in Category 1 constitute violations of section 192.605(a) “for failing to follow . . . written procedures to maintain and update . . . operating maps and records.”⁶ As discussed in PG&E’s Opening Brief, SED did not meet its burden of showing that PG&E failed to follow specific procedures.⁷ But, even if the Commission finds that PG&E did, in fact, violate section 192.605(a), it should not adopt SED’s penalty calculation because these are not continuing violations.

A procedure—for example, a mapping update protocol—is either followed or not followed on *one* occasion; an employee does not continue to “fail to follow” it indefinitely. SED appears to assume that these violations are continuing because the result of the failure to update a map or record correctly (*i.e.*, the inaccurate map/record) may exist until it is remedied. But that is not the meaning of a “continuing violation.” The Commission has illuminated this distinction. It held in D. 15-04-023 that “we note as a general matter our concurrence with PG&E that for a continuing violation to occur under section 2108, it is the violation itself that must be ongoing, *not its result*.”⁸ If SED had applied this Commission guidance, it would not have multiplied the number of actual violations many times over.

⁵ SED OB at 76-89.

⁶ *Id.* at 76.

⁷ PG&E OB at 43-45.

⁸ *Order Instituting Investigation on the Comm’n’s Own Motion into the Operations & Practices of Pac. Gas & Elec. Co. to Determine Violations of Pub. Utils. Code Section 451, Gen. Order 112, & Other Applicable Standards, Laws, Rules & Regulations in Connection with the San Bruno Explosion & Fire on Sept. 9, 2010*, D. 15-04-023, 2015 Cal. PUC LEXIS 229, at *96 (citing *People ex rel. Younger v. Super. Ct.*, 16 Cal. 3d 30 (1976)) (emphasis added).

SED also miscalculated the Milpitas Incident I penalty by multiplying the violation by the *number of customers affected* by the service outage.⁹ This has no basis in section 2108. It should be disregarded.

Although PG&E does not believe that SED has met its burden of proof, even if these violations were proven, each fine would be a one-time penalty of \$2,000, \$20,000, or \$50,000, depending on when the relevant procedure is deemed not to have been followed.¹⁰ Accordingly, the following table sets forth the maximum available penalties¹¹ for the alleged Category 1 violations of section 192.605(a) after adjusting for SED’s improper methodology:

Incident	SED’s Recommended Fine	Maximum Properly Calculated Fine
Charleston Road, Mountain View	\$5.786 million	\$2,000
F Street, Sacramento	\$20,000	\$20,000
Goodhill Road and Diablo Drive, Kentfield	\$60,000	\$20,000
Great Mall Parkway, Milpitas (Milpitas II)	\$5.02 million	\$20,000
Guadalupe Street and 3rd Avenue, Carmel	\$20.73 million	\$20,000
Main Street, Morgan Hill	\$5.278 million	\$2,000
Montague Expressway and Great Mall Parkway, Milpitas (Milpitas I)	\$1.974 million	\$0 ¹²
San Miguel Avenue, Castro Valley	\$1.38 million	\$20,000

⁹ SED OB at 77.

¹⁰ Public Utilities Code section 2107 provides the maximum penalty amount for violations committed by a utility. For violations committed: from 1951 to December 31, 1993, the maximum penalty is \$2,000 (Cal. Pub. Util. Code § 2107 (1951)); from January 1, 1994 to December 31, 2011, the maximum penalty is \$20,000 (Cal. Pub. Util. Code § 2107 (1993)); and, from January 1, 2012 to the present, the maximum penalty is \$50,000 (Cal. Pub. Util. Code § 2107 (2012)).

¹¹ With respect to the incidents in Mountain View and Carmel, PG&E has acknowledged that, when viewed in hindsight, it did not meet its own expectations when it comes to safety. *See supra* PG&E Reply Brief p. 1. PG&E, however, has not waived any of its legal or factual arguments regarding SED’s penalty calculations. *See supra* PG&E Reply Brief p. 8 n.26.

¹² This incident did not involve recordkeeping. PG&E OB at B-5; Ex. 4 at 3-25:3-17 (PG&E Reply Testimony, Higgins); *see also* 1/20/16 Tr. at 286:11-14 (PG&E/Higgins) (“The physical record is actually correct. It is the position of the valve, in fact, in the field that wasn’t correct.”).

Incident	SED's Recommended Fine	Maximum Properly Calculated Fine
San Ramon Valley Boulevard, San Ramon	\$2.84 million	\$20,000
Tully Road, San Jose (San Jose II)	\$50,000	\$50,000
West Ashlan Avenue, Fresno	\$6.22 million	\$2,000
SF Division – Leak 1	\$1 million	\$50,000
SF Division – Leak 2	\$1.3 million	\$50,000
San Jose Division – Leak 1	\$1.05 million	\$50,000
San Jose Division – Leak 2	\$600,000	\$50,000
Total	\$53.308 million	\$376,000

2. Category 2 Violations

a. The Alleged Category 2 Violations Are Duplicative and Without Merit.

As discussed above, SED uses its Opening Brief to introduce new alleged violations for failing to have “controls in place,” leading to purported systemwide failures.¹³ These allegations should be disregarded because they were raised too late.¹⁴ Additionally, neither SED nor its consultants at PWA purported to conduct a comprehensive review of PG&E’s recordkeeping practices, and, as such, there is no basis for such sweeping violations.¹⁵ Although those reasons alone would be sufficient, proposed penalties for this category are also deficient because SED has alleged duplicative and overlapping violations. Due Process prohibits the imposition of multiple penalties for the same underlying conduct.¹⁶

Prior decisions by the Commission have rejected duplicative penalties based on allegations that appear discrete at first glance, but in fact punish the substantially same actions twice. In D. 15-04-023, for example, SED alleged two purportedly separate violations: first, that PG&E did not “incorporate”

¹³ See *supra* PG&E Reply Brief pp. 40-47.

¹⁴ See *supra* PG&E Reply Brief pp. 40-43.

¹⁵ See *supra* PG&E Reply Brief pp. 43-47.

¹⁶ *De Anza Santa Cruz Mobile Estates Homeowners Ass’n. v. De Anza Santa Cruz Mobile Estates*, 94 Cal. App. 4th 890, 912 (2001) (stating that due process prohibits “double penalties for the same conduct”); *Troensegaard v. Silvercrest Indus., Inc.*, 175 Cal. App. 3d 218, 226-28 (1985) (“A defendant has a due process right to be protected against unlimited multiple punishment for the same act” or “substantially the same conduct”).

the “weakest element” of a pipeline into its design pressure calculations, thus creating an unsafe pipeline; and second, that PG&E lacked “complete and accurate knowledge of the specifications” of the weakest element, therefore not meeting MAOP determination requirements and creating an unsafe pipeline.¹⁷ The Commission found no “significant, bright line distinction” between the two purportedly discrete allegations and instead combined them on the ground that “[b]oth pertain to consideration of the design pressure of the weakest element.”¹⁸ Similarly, in D. 15-04-021, SED alleged that PG&E simultaneously violated section 451 by failing to have accurate Supervisory Control and Data Acquisition System (SCADA) diagrams, which left control room operators without “the data essential for fully understanding” the transmission system, and also by failing to provide its control room operators with “accurate and useable SCADA displays,” which reduced the SCADA system’s usefulness and rendered PG&E’s reliance upon it unsafe.¹⁹ The Commission found that the second allegation was not its own “separate” violation but rather part of the first, as the allegations both hinged on whether the underlying data in SCADA were inaccurate.²⁰ And in the Coordinated Remedies Decision in San Bruno, the Commission excluded 19,611 days of violations for failing to conduct hydrostatic testing in favor of consolidating the claim under a “more inclusive” allegation of failing to maintain records of such testing.²¹

SED asserts that its Category 2 violations are based on the incidents described in the PWA Report, PG&E’s setting of MAOP for certain distribution systems, and the missing De Anza leak repair records.²² These asserted violations overlap completely with violations for the same purported conduct that SED identifies elsewhere:

¹⁷ D. 15-04-023, 2015 Cal. PUC LEXIS 229, at *137.

¹⁸ *Id.* at *137-38.

¹⁹ *Order Instituting Investigation on the Comm’n’s Own Motion into the Operations & Practices of Pac. Gas & Elec. Co. with Respect to Facilities Records for its Nat. Gas Transmission Sys. Pipelines*, D. 15-04-021, 2015 Cal. PUC LEXIS 228, at *157, 167. Part of the alleged reason that the “displays” were inaccurate was that the underlying diagrams were inaccurate. *Id.* at *167-69.

²⁰ *Id.* at *169.

²¹ *Order Instituting Investigation on the Comm’n’s Own Motion into the Operations & Practices of Pac. Gas & Elec. Co. to Determine Violations of Pub. Util. Code Section 451, Gen. Order 112, & Other Applicable Standards, Laws, Rules & Regulations in Connection with the San Bruno Explosion & Fire on Sept. 9, 2010*, D. 15-04-024, Cal. PUC LEXIS 230, at *35.

²² SED OB at 79.

- The alleged Category 2 violations premised on “the failure to maintain accurate operating maps and/or data”²³ are nearly identical to the alleged Category 1 violations premised on “failing to follow . . . written procedures to maintain and update . . . operating maps and records”²⁴ and also the alleged Category 5 violations for failing “to provide operating staff with accurate records, maps and operating history.”²⁵
- The alleged Category 2 violations based on the “absence of records to support establishment of the MAOP for approximately 243 distribution systems”²⁶ are identical to the alleged Category 7 violations for failure “to maintain records to establish the maximum allowable operating pressure (MAOP) for approximately 243 distribution systems.”²⁷
- The alleged Category 2 violations premised on the “missing leak repair records”²⁸ are the same as the alleged Category 4 violation, which is also based on the De Anza leak repair records.²⁹

Because the alleged Category 2 violations are duplicative of and overlapping with other violations, no additional fines for this category are warranted, as reflected in this table:

Incident	SED’s Recommended Fine	Maximum Properly Calculated Fine
Systemwide Failure	\$7.122 million	\$0
Missing De Anza Division A Forms	\$9.496 million	\$0
Total	\$16.618 million	\$0

3. Category 3 Violations

The Scoping Memo defines the question to be determined in this OII as whether PG&E violated any applicable laws, regulations, or rules by its “recordkeeping policies and practices.”³⁰ The

²³ *Id.* at 79.

²⁴ *Id.* at 76.

²⁵ *Id.* at 84.

²⁶ *Id.* at 79.

²⁷ *Id.* at 86.

²⁸ *Id.* at 79.

²⁹ *Id.* at 83-84.

³⁰ Scoping Memo at 3; PG&E OB at 41-42, C-2; *see supra* PG&E Reply Brief pp. 47-49.

alleged Category 3 violations are related to PG&E's procedures to conduct causal analyses or otherwise incorporate lessons learned from past failures.³¹ PG&E agrees that learning from past incidents is an important component of its goal to become the safest and most reliable gas utility in the country, which is why PG&E has a robust set of causal evaluation procedures.³² These regulations, however, are not recordkeeping requirements and are, therefore, outside the scope of the OIL.

a. PG&E's Actions After the Mountain View Incident

Among the alleged violations for failure to conduct adequate causal analyses, SED argues that PG&E should be penalized for failing to address the issue of unknown plastic inserts after having been put on notice of the issue following the Mountain View incident.³³ PG&E has admitted that, with the benefit of hindsight, it could have done more to mitigate the risks of unmapped plastic inserts.³⁴ PG&E agrees that this issue is properly within scope, although not for the specific regulatory violations proffered by SED.³⁵ Nonetheless, assuming the Commission considers whether to assess a fine for PG&E's conduct, SED has identified the correct time frame, July 30, 2013 to March 3, 2014.³⁶

b. The Carmel Residence That Was Not on the Plat Map

In its discussion of unmapped facilities, SED references the Carmel resident who lost service on April 6, 2015 because her gas service was not tied into a new distribution main.³⁷ PG&E does not dispute that the service line at issue was not identified on the plat map. PG&E re-established gas service to the home and updated its records accordingly.³⁸ The failure to update the relevant plat map

³¹ SED OB at 80-83.

³² Ex. 4 at 1-6:8-16 (PG&E Reply Testimony, Howe); *id.* at 5-21:23 to 5-22:7, 5-22:22 to 5-28:15 (PG&E Reply Testimony, Singh).

³³ SED OB at 80-81.

³⁴ PG&E OB at 50-51; 1/20/16 Tr. at 317:19 to 318:8 (PG&E/Higgins); Ex. 4 at 3-26:18-25 (PG&E Reply Testimony, Higgins).

³⁵ With respect to unmapped plastic inserts, PG&E has acknowledged that, when viewed in hindsight, it did not meet its own expectations when it comes to safety. *See supra* PG&E Reply Brief pp. 8-9. PG&E, however, has not waived any of its legal or factual arguments regarding SED's penalty calculations. *See supra* PG&E Reply Brief p. 8 n.26

³⁶ SED OB at 81.

³⁷ *Id.* at 82.

³⁸ Ex. 4 at 3-39:26 to 3-40:2 (PG&E Reply Testimony, Higgins).

with this service line could constitute a one-time violation of section 192.605(a), similar to the alleged Category 1 violations.

c. In Addition to Being Out of Scope, the Remaining Alleged Category 3 Violations Suffer From Other Flaws.

SED argues that PG&E should be fined \$1.29 million for failing to timely investigate the missing De Anza leak repair records.³⁹ Violations based on the De Anza A Forms should be barred by fundamental notions of Due Process and fundamental notions of fairness.⁴⁰

SED also argues that PG&E should be penalized for its alleged “failure to account for unknown stubs.”⁴¹ SED appears to be basing this recommended fine on anecdotal evidence compiled by PWA without the benefit of a comprehensive review of PG&E’s stub program. SED identified three incidents that involved unmapped stubs, and SED is elsewhere seeking penalties related to those events.⁴² Therefore, the alleged violation lacks evidentiary support, is duplicative of other alleged violations, and should not be considered.

SED proposes a \$2.51 million fine for “unmapped facilities” on top of a \$1.93 million fine for “mismapped facilities.”⁴³ These claims are barred for the primary reason that SED never provided notice that it was alleging violations for such alleged systemwide deficiencies, nor could it, given the lack of a comprehensive investigation by PWA to determine whether such conditions even exist.⁴⁴ Instead, PWA focused on a handful of individual incidents, which are appropriately before the Commission and PG&E has addressed in its evidence and briefing. In addition, these new Category 3 allegations are plainly duplicative and overlapping. The incidents that SED argues are evidence of failures related to “unmapped facilities” and “mismapped facilities” are the same incidents underlying the alleged violations of sections 192.605(a) and 192.605(b)(3).⁴⁵

³⁹ SED OB at 81.

⁴⁰ See *supra* PG&E Reply Brief pp. 30-37.

⁴¹ SED OB at 81.

⁴² *Id.* at 53, 63-64, 67 (describing Morgan Hill, Lafayette, and San Jose II incidents as involving stubs); *id.* at 76-78, 84-86 (alleging penalties for Morgan Hill and San Jose II incidents); *id.* at 85-86, 88 (alleging penalties for Lafayette incident).

⁴³ *Id.* at 82-83.

⁴⁴ See *supra* PG&E Reply Brief pp. 40-47; Appendix B at pp. B-56 to B-57.

⁴⁵ Compare SED OB at 82-83 with SED OB at 76-79, 84-85.

Last, SED alleges that PG&E failed to “address difficult to locate facilities.”⁴⁶ In SED’s telling, PG&E may be susceptible to mismarking if electrical means of locating are not available. SED cannot sustain this violation, as a factual matter, in light of Mr. Higgins’s lengthy and uncontroverted testimony on PG&E’s locate-and-mark organization, resources, procedures, and tools.⁴⁷ Additionally, SED’s description of this alleged violation, which references locating and marking techniques, makes clear that this is an alleged operational violation, and not a recordkeeping issue. It is therefore out of scope.

d. The Maximum Properly Calculated Fine for the Alleged Category 3 Violations Is Far Less Than SED’s Recommendation.

The following table summarizes the maximum penalties for the alleged Category 3 violations when adjusting for those parts of SED’s methodology with which PG&E disagrees, as discussed above.

Incident	SED’s Recommended Fine	Maximum Properly Calculated Fine
Unknown Plastic Inserts (Mountain View and Carmel)	\$10.8 million	\$0
Investigation into Missing Leak Repair Records	\$1.29 million	\$0
Unknown Stubs	\$6.8 million	\$0
Unmapped Facilities	\$2.51 million	\$50,000 ⁴⁸
Mismapped Facilities	\$1.93 million	\$0
Difficult to Locate Facilities	\$1.65 million	\$0
Total	\$24.98 million	\$50,000

4. For Reasons Already Discussed, the Alleged Category 4 Violation Related to the De Anza A Forms Should Be Disregarded.

In its Category 4 violations, SED seeks its third separate penalty related to the missing De Anza A Forms, based on PG&E’s alleged failure to timely disclose information about this issue.⁴⁹ The PWA

⁴⁶ *Id.* at 83.

⁴⁷ Ex. 4 at 3-5:17 to 3-23:20 (PG&E Reply Testimony, Higgins).

⁴⁸ April 6, 2015 Santa Fe Avenue, Carmel incident. *See* SED OB at 82.

⁴⁹ SED OB at 83-84.

Report showed that SED was aware of the missing records, but asserted no corresponding alleged violations.⁵⁰ Thus, PG&E could not have known these records would be at issue, because SED gave no timely notice of its intention to seek penalties related to the leak repair records,⁵¹ notwithstanding the fact that PG&E fully disclosed the existence of the missing records in discovery.⁵² No penalty is appropriate for the alleged Category 4 violation.

Incident	SED's Recommended Fine	Maximum Properly Calculated Fine
Disclosure of Missing De Anza Leak Repair Records	\$8.6 million	\$0

5. PG&E Generally Does Not Dispute SED's Calculation of the Alleged Category 5 Penalties.

SED groups the alleged violations of section 192.605(b)(3) in Category 5. These violations were identified in the PWA Report, and PG&E responded on the merits in its Opening Brief.⁵³ PG&E maintains the procedures that are required to be maintained under section 192.605(b)(3).⁵⁴ SED's attempt to read into the regulation a substantive requirement that all records made available to field personnel must be perfect is not found anywhere in the text of the regulation and is inconsistent with the federal pipeline safety regulations and the associated guidance.⁵⁵ What is new in SED's Opening Brief is that SED has amended these violations to include an additional violation under section 451.⁵⁶ PG&E does not believe that the late addition of this violation supersedes the plain language of section 192.605(b)(3) to support the notion that section 451 includes a substantive requirement of perfect records even if the federal regulation does not. For reasons explained above, untimely allegations such as these new section 451 violations should be disregarded.⁵⁷ The section 451 violations should be rejected for the additional reason that there is no regulatory requirement that all pipeline records be

⁵⁰ See Ex. 1 at 90 attch. B (PWA Report).

⁵¹ See *supra* PG&E Reply Brief pp. 34-37.

⁵² See *supra* PG&E Reply Brief pp. 37-40.

⁵³ PG&E OB at 45-48.

⁵⁴ *Id.* at 45-47.

⁵⁵ *Id.*

⁵⁶ SED OB at 84-85.

⁵⁷ See *supra* PG&E Reply Brief pp. 30-33.

perfect and therefore that to penalize each instance of an imperfection would create a requirement that does not exist and with which no pipeline operator in the nation could comply.⁵⁸

Although PG&E does not contest the Mountain View incident and, therefore, agrees that the maximum fine is \$50,000,⁵⁹ PG&E stands by the arguments expressed above. Otherwise, if the Commission were to impose penalties in connection with these alleged violations, PG&E generally does not disagree with SED's calculations, as shown in the following table:

Incident	SED's Recommended Fine	Maximum Properly Calculated Fine
Grimes/Arbuckle Road and First Street, Colusa	\$20,000	\$0 ⁶⁰
San Ramon Valley Boulevard, San Ramon	\$20,000	\$20,000
San Miguel Avenue, Castro Valley	\$20,000	\$20,000
Harding Boulevard, Roseville	\$20,000	\$20,000
F Street, Sacramento	\$20,000	\$20,000
Main Street, Morgan Hill	\$50,000	\$50,000
Great Mall Parkway, Milpitas (Milpitas II)	\$50,000	\$50,000
Montague Expressway, Milpitas (Milpitas I)	\$100,000	\$0 ⁶¹
Charleston Road, Mountain View	\$50,000	\$50,000
Guadalupe Street and 3rd Avenue, Carmel	\$50,000	\$50,000
West Ashlan Avenue, Fresno	\$50,000	\$50,000
Tully Road, San Jose (San Jose II)	\$50,000	\$50,000
Total	\$500,000	\$380,000

⁵⁸ See PG&E OB at 30-41, 45-47 (discussing the lack of regulatory support for PWA's proposed standard of care that would require zero defects in an operator's records, and stating that such a standard is unattainable).

⁵⁹ See *supra* PG&E Reply Brief p. 9.

⁶⁰ This is neither a distribution incident nor a recordkeeping incident and is therefore out of scope. See *infra* Appendix B at p. B-5.

⁶¹ This is not a recordkeeping incident and is therefore out of scope. See *infra* Appendix B at p. B-10.

6. SED's Alleged Category 6 Locate and Mark Violations Are Out of Scope.

As discussed in Appendix C to PG&E's Opening Brief, SED's numerous alleged violations of the operational standards for locating and marking underground facilities are not recordkeeping violations and do not belong in this proceeding.⁶² 49 C.F.R. § 192.614(c)(5) and California Government Code § 4216.3(a)(1) do not prescribe how records should be created, maintained, or accessed, and, thus, these alleged violations should be disregarded, as reflected in the following table:

Incident	SED's Recommended Fine	Maximum Properly Calculated Fine
San Ramon Valley Boulevard, San Ramon	\$20,000	\$0
San Miguel Avenue, Castro Valley	\$20,000	\$0
Harding Boulevard, Roseville	\$20,000	\$0
Goodhill Road and Diablo Drive, Kentfield	\$20,000	\$0
F Street, Sacramento	\$20,000	\$0
Main Street, Morgan Hill	\$50,000	\$0
Great Mall Parkway, Milpitas (Milpitas II)	\$50,000	\$0
Danville Road, Alamo	\$50,000	\$0
Pleasant Hill Road, Lafayette	\$50,000	\$0
Palou Avenue, San Francisco	\$50,000	\$0
West Ashlan Avenue, Fresno	\$50,000	\$0
Tully Road, San Jose (San Jose II)	\$50,000	\$0
Total	\$450,000	\$0

7. PG&E Disagrees With the Alleged Violations but Does Not Dispute SED's Calculation of the Proposed Fine for the Category 7 MAOP Violations.

PG&E's arguments regarding SED's allegations concerning the Company's use of an alternative method to set MAOP for approximately 243 gas distribution systems have been well briefed⁶³ and will not be repeated here. While PG&E does not agree that SED has shown that PG&E

⁶² See *supra* PG&E Reply Brief pp. 41-42; Appendix C at pp. C-3 to C-4.

⁶³ PG&E OB at 56-62.

violated the pipeline safety regulations in connection with the setting of MAOP on these systems, if the Commission finds PG&E in violation, PG&E does not disagree with SED's maximum fine calculation.

Incident	SED's Recommended Fine	PG&E's Suggested Maximum Fine
MAOP-Associated Violations	\$7.12 million	\$7.12 million

8. The Other Violations Grouped in Category 8 Are All Outside the Scope of the OII.

SED's alleged Category 8 violations include various alleged regulatory violations, most of which were already addressed in PG&E's Opening Brief, and are all outside the scope of the proceeding.⁶⁴ PG&E has already established that the Colusa, Antioch, Alameda, and Market Street, San Jose I incidents are not related to recordkeeping and are therefore out of scope.⁶⁵ The other violations alleged in Category 8 concern matters that are plainly operational and not recordkeeping-related, such as the obligation to perform leak surveys,⁶⁶ the installation of tracer wire,⁶⁷ locating and marking during emergency conditions,⁶⁸ and deactivation of abandoned mains.⁶⁹ These alleged violations should be disregarded, as follows:

⁶⁴ PG&E OB at 41-42, B-2 to B-7.

⁶⁵ *Id.* at B-2 to B-7.

⁶⁶ *Id.* at C-2.

⁶⁷ *Id.* at C-3.

⁶⁸ Cal. Pub. Util. Code § 451 (not incorporating any specific recordkeeping requirements or standards); SED OB at 88 (applying Public Utilities Code section 451 to PG&E's locating and marking activities during emergency conditions).

⁶⁹ *Id.* at C-3.

Incident	SED's Recommended Fine	Maximum Properly Calculated Fine
Colusa (Gas Transmission)	\$40,000	\$0
San Ramon	\$40,000	\$0
Antioch	\$40,000	\$0
Alameda	\$40,000	\$0
Kentfield	\$20,000	\$0
Alamo	\$50,000	\$0
Lafayette	\$20,000	\$0
San Jose I	\$100,000	\$0
Total	\$350,000	\$0

APPENDIX B

Incidents and Alleged Violations

Incidents Not Related to Recordkeeping & Outside of Scope	Page
Alameda, Aughinbaugh Way (Sept. 28, 2010)	B-3
Colusa, Grimes/Arbuckle Road and First Street (Mar. 19, 2009)	B-5
Antioch, Lonetree Way and James Donlon Boulevard (Mar. 15, 2010)	B-8
Milpitas, Montague Expressway and Great Mall Parkway (Oct. 10, 2012) (Milpitas I).....	B-9
San Francisco, Palou Avenue (Apr. 8, 2014).....	B-11
San Jose, S. Market Street (Nov. 7, 2014) (San Jose I)	B-12

Incidents Potentially Related to Recordkeeping	Page
Mountain View, Charleston Road (July 30, 2013)	B-13
Alamo, Danville Road (July 24, 2013)	B-15
Sacramento, F Street (Oct. 31, 2011).....	B-18
Kentfield, Goodhill Road and Diablo Drive (Apr. 1, 2011)	B-21
Milpitas, Great Mall Parkway (Mar. 4, 2013) (Milpitas II).....	B-23
Carmel, Guadalupe Street and 3rd Avenue (Mar. 3, 2014)	B-26
Roseville, Harding Boulevard (Oct. 21, 2010)	B-28
Morgan Hill, Main Street (June 21, 2012).....	B-30
Lafayette, Pleasant Hill Road (Aug. 27, 2013).....	B-33
Castro Valley, San Miguel Avenue (Sept. 17, 2010).....	B-35
San Ramon, San Ramon Valley Boulevard (Aug. 12, 2009).....	B-38
San Jose, Tully Road (Jan. 20, 2015) (San Jose II)	B-41
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Failure to Address Difficult to Locate Facilities.....	B-58
Failure to Disclose the Missing De Anza Division Records in Response to the OII.....	B-59

Incidents Not Related to Recordkeeping & Outside of Scope

ALAMEDA, AUGHINBAUGH WAY (SEPT. 28, 2010)

- This incident involved third-party damage to a plastic main.¹
- The plat map for the location was and is accurate.² The cause of the inaccurate locate and mark was likely that the locator misunderstood the position of the property line from which he calculated his marks.³
- There were no reported injuries.⁴

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
Recordkeeping:⁵ <u>49 C.F.R. § 192.605(a)</u> <ul style="list-style-type: none"> SED alleges that PG&E failed to follow WP 4412-03, in violation of section 192.605(a).⁶ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)</u> <ul style="list-style-type: none"> This is not a recordkeeping incident. SED initially described this incident as a third-party dig-in resulting from an inaccurate PG&E map.⁷ PG&E clarified that the plat map was, in fact, correct, but the “locator misunderstood the position of the property line from which he calculated his marks.”⁸ SED has not proven that PG&E failed to prepare or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.605(a), because WP 4412-03 is not a recordkeeping procedure.⁹ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)</u> <ul style="list-style-type: none"> SED proposes a penalty of \$20,000 for PG&E’s alleged one-time violation of section 192.605(a).¹⁰ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)</u> <ul style="list-style-type: none"> No penalty is warranted because the incident is out of scope, and SED has not met its burden of proof.¹¹

ALAMEDA, AUGHINBAUGH WAY (SEPT. 28, 2010)

- This incident involved third-party damage to a plastic main.¹
- The plat map for the location was and is accurate.² The cause of the inaccurate locate and mark was likely that the locator misunderstood the position of the property line from which he calculated his marks.³
- There were no reported injuries.⁴

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Non-Recordkeeping:¹²</p> <p><u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)</u></p> <ul style="list-style-type: none"> • SED alleges that PG&E failed to provide accurate temporary marking for its subsurface facilities, in violation of sections 192.614(c)(5) and 4216.3(a)(1).¹³ 	<p>Non-Recordkeeping:</p> <p><u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)</u></p> <ul style="list-style-type: none"> • Section 192.614(c)(5), addressing requirements for written damage prevention programs, does not relate to recordkeeping.¹⁴ Moreover, PG&E's Damage Prevention Handbook, first published in Oct. 2013 and updated in March 2014, complies with the regulation. Nor is there any evidence that prior damage prevention practices were deficient.¹⁵ • Section 4216.3(a)(1), addressing "Locating and Field Marking of Subsurface Installations," does not relate to recordkeeping.¹⁶ 	<p>Non-Recordkeeping:</p> <p><u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)</u></p> <ul style="list-style-type: none"> • SED proposes a penalty of \$20,000 for PG&E's alleged one-time violation of sections 192.614(c)(5) and 4216.3(a)(1).¹⁷ 	<p>Non-Recordkeeping:</p> <p><u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)</u></p> <ul style="list-style-type: none"> • No penalty is warranted because the incident and the violations are out of scope.¹⁸ • Furthermore, PG&E's Damage Prevention Handbook complies with section 192.614(c)(5), and there is no evidence that past damage prevention practices were deficient.¹⁹

COLUSA, GRIMES/ARBUCKLE ROAD AND FIRST STREET (MAR. 19, 2009)

- A PG&E crew foreman performing excavation work did not understand that a symbol on the plat map indicated the potential presence of an offset.²⁰
- As a result, a PG&E gas crew dug into a main that had not been marked.²¹ There were no reported injuries.²²

Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • SED alleges that PG&E provided inaccurate maps and records to field personnel, in violation of sections 192.605(b)(3) and 451.²³ 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • This incident occurred on a transmission line and is therefore out of scope.²⁴ • SED has not shown that PG&E's O&M Manual lacked procedures for making maps/records available, as required by section 192.605(b)(3). PG&E maintained such procedures.²⁵ • Section 192.605(b)(3) does not speak to records accuracy or require that records be perfect.²⁶ • Regardless, there is no evidence that the plat map was inaccurate. • SED did not allege a section 451 violation in its direct testimony, and is therefore barred from raising the new claim.²⁷ To the extent SED alleges section 192.605(b)(3) is the basis for the alleged section 451 violation, the same arguments apply. 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • SED proposes a penalty of \$20,000 for PG&E's alleged one-time violation of sections 192.605(b)(3) and 451.²⁸ 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • No penalty is warranted because the incident is out of scope, and SED has not met its burden of proof.²⁹ • In addition, due process requires PG&E to have received notice of the section 451 violation when SED filed its direct testimony, and to the extent the violation overlaps with the section 192.605(b)(3) violation, no penalty is warranted because SED has not met its burden of proof.³⁰

COLUSA, GRIMES/ARBUCKLE ROAD AND FIRST STREET (MAR. 19, 2009)

- A PG&E crew foreman performing excavation work did not understand that a symbol on the plat map indicated the potential presence of an offset.²⁰
- As a result, a PG&E gas crew dug into a main that had not been marked.²¹ There were no reported injuries.²²

Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Non-Recordkeeping: <u>49 C.F.R. § 192.605(a) and Cal. Gov't Code § 4216.3(a)(1)</u></p> <ul style="list-style-type: none"> • SED alleges that PG&E did not follow an unspecified locate and mark procedure and did not locate and mark all subsurface facilities within the delineated area, in violation of sections 192.605(a) and 4216.3(a)(1).³¹ 	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.605(a) and Cal. Gov't Code § 4216.3(a)(1)</u></p> <ul style="list-style-type: none"> • This is not a recordkeeping incident. • SED has not proven that PG&E failed to prepare or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.605(a), because SED does not cite any recordkeeping procedure.³² • This incident occurred on a transmission line, not a distribution line.³³ • SED investigated this incident in 2010 and did not issue any Notice of Violation or a fine.³⁴ • Section 4216.3(a)(1), addressing "Locating and Field Marking of Subsurface Installations," does not relate to recordkeeping.³⁵ 	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.605(a) and Cal. Gov't Code § 4216.3(a)(1)</u></p> <ul style="list-style-type: none"> • SED proposes a penalty of \$20,000 for PG&E's alleged violation of sections 192.605(a) and 4216.3(a)(1).³⁶ 	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.605(a) and Cal. Gov't Code § 4216.3(a)(1)</u></p> <ul style="list-style-type: none"> • No penalty is warranted because the incident and the violations³⁷ are out of scope, and SED has not met its burden of proof.³⁸ • Moreover, SED investigated this incident in 2010 and did not issue any Notice of Violation or a fine.³⁹

COLUSA, GRIMES/ARBUCKLE ROAD AND FIRST STREET (MAR. 19, 2009)

- A PG&E crew foreman performing excavation work did not understand that a symbol on the plat map indicated the potential presence of an offset.²⁰
- As a result, a PG&E gas crew dug into a main that had not been marked.²¹ There were no reported injuries.²²

Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
Non-Recordkeeping: <u>49 C.F.R. § 192.805(h)*</u> <ul style="list-style-type: none"> • SED alleges that PG&E's L&M staff had experience, training, and qualifications inconsistent with then-applicable mapping standards, in violation of section 192.805(h).⁴⁰ 	Non-Recordkeeping: <u>49 C.F.R. § 192.805(h)*</u> <ul style="list-style-type: none"> • SED did not allege a section 192.805(h) violation in its direct testimony, and should be therefore barred from raising the new claim.⁴¹ • Section 192.805(h), requiring operators to have written qualification programs that include certain training requirements, is unrelated to recordkeeping.⁴² Moreover, SED has not met its burden to prove this violation.⁴³ 	Non-Recordkeeping: <u>49 C.F.R. § 192.805(h)*</u> <ul style="list-style-type: none"> • SED proposes a penalty of \$20,000 for PG&E's alleged one-time violation of section 192.805(h).⁴⁴ 	Non-Recordkeeping: <u>49 C.F.R. § 192.805(h)*</u> <ul style="list-style-type: none"> • No penalty is warranted because the incident and violation are out of scope, and because SED has not met its burden of proof.⁴⁵ • Furthermore, due process requires PG&E to have received notice of the section 192.805(h) violation when SED filed its direct testimony.⁴⁶

ANTIOCH, LONETREE WAY AND JAMES DONLON BOULEVARD (MAR. 15, 2010)

- This incident arose out of construction work in which a third-party contractor struck a plastic gas main while excavating.⁴⁷
- The locator used electrical means to mark out the line, but the signal emanating from the line was incorrect and caused the locator to mismark.⁴⁸
- There were no reported injuries.⁴⁹

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
Recordkeeping: <u>49 C.F.R. § 192.605(a)</u> <ul style="list-style-type: none"> • SED alleges that PG&E failed to follow WP 4412-03, in violation of section 192.605(a).⁵⁰ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)</u> <ul style="list-style-type: none"> • This is not a recordkeeping incident. • SED has not proven that PG&E failed to prepare or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.605(a), because WP 4412-03 is not a recordkeeping procedure.⁵¹ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)</u> <ul style="list-style-type: none"> • SED proposes a penalty of \$20,000 for PG&E's alleged one-time violation of section 192.605(a).⁵² 	Recordkeeping: <u>49 C.F.R. § 192.605(a)</u> <ul style="list-style-type: none"> • No penalty is warranted because the incident and violation⁵³ are out of scope, and because SED has not met its burden of proof.⁵⁴
Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)</u> <ul style="list-style-type: none"> • SED alleges that PG&E failed to provide accurate temporary marking for its subsurface facilities, in violation of sections 192.614(c)(5) and 4216.3(a)(1).⁵⁵ 	Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)</u> <ul style="list-style-type: none"> • Section 192.614(c)(5), addressing requirements for written damage prevention programs, does not relate to recordkeeping.⁵⁶ Moreover, PG&E's Damage Prevention Handbook, first published in Oct. 2013 and updated in March 2014, complies with the regulation. Nor is there any evidence that prior damage prevention practices were deficient.⁵⁷ • Section 4216.3(a)(1), addressing "Locating and Field Marking of Subsurface Installations," does not relate to recordkeeping.⁵⁸ 	Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)</u> <ul style="list-style-type: none"> • SED proposes a penalty of \$20,000 for PG&E's alleged one-time violation of sections 192.614(c)(5) and 4216.3(a)(1).⁵⁹ 	Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)</u> <ul style="list-style-type: none"> • No penalty is warranted because the incident and violations are out of scope.⁶⁰ • Furthermore, PG&E's Damage Prevention Handbook complies with section 192.614(c)(5), and there is no evidence that past damage prevention practices were deficient.⁶¹

MILPITAS, MONTAGUE EXPRESSWAY AND GREAT MALL PARKWAY (OCT. 10, 2012) (MILPITAS I)

- A PG&E crew, preparing to conduct a distribution main transfer, plugged the northern end of the existing steel pipeline and tapped and plugged the southern end of it.⁶²
- The pressure gauge was not monitored from approximately 1145 hours to 1300 hours.⁶³
- At approximately 1245 hours, PG&E received notices of gas outages.⁶⁴
- A 2-inch plug valve which appeared open on the plat map was in fact closed, thereby preventing gas from being fed from an alternate feed and resulting in the service outage.⁶⁵
- There were no reported injuries or property damage.⁶⁶

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
Recordkeeping: <u>49 C.F.R. § 192.605(a)</u> <ul style="list-style-type: none"> • SED alleges that PG&E failed to follow Standards A-93.1 and D-S0454, which require that personnel be assigned to monitor pressure during field work, in violation of section 192.605(a).⁶⁷ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)</u> <ul style="list-style-type: none"> • This is not a recordkeeping incident. • SED has not proven that PG&E failed to prepare or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.605(a), because Standards A-93.1 and D-S0454 are not recordkeeping procedures.⁶⁸ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)</u> <ul style="list-style-type: none"> • SED proposes a penalty of \$1.974 million for PG&E's alleged violation of section 192.605(a).⁶⁹ • SED's penalty calculation is based on a \$2,000 fine for each customer impacted (987 x \$2,000 = \$1.974 million).⁷⁰ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)</u> <ul style="list-style-type: none"> • No penalty is warranted because the incident and violation⁷¹ are out of scope, and because SED has not met its burden of proof.⁷²

MILPITAS, MONTAGUE EXPRESSWAY AND GREAT MALL PARKWAY (OCT. 10, 2012) (MILPITAS I)

- A PG&E crew, preparing to conduct a distribution main transfer, plugged the northern end of the existing steel pipeline and tapped and plugged the southern end of it.⁶²
- The pressure gauge was not monitored from approximately 1145 hours to 1300 hours.⁶³
- At approximately 1245 hours, PG&E received notices of gas outages.⁶⁴
- A 2-inch plug valve which appeared open on the plat map was in fact closed, thereby preventing gas from being fed from an alternate feed and resulting in the service outage.⁶⁵
- There were no reported injuries or property damage.⁶⁶

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u> <ul style="list-style-type: none"> • SED alleges that PG&E provided inaccurate maps and records to field personnel, in violation of sections 192.605(b)(3) and 451.⁷³ 	Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u> <ul style="list-style-type: none"> • SED has not shown that PG&E's O&M Manual lacked procedures for making maps/records available, as required by section 192.605(b)(3). PG&E maintained such procedures.⁷⁴ • Section 192.605(b)(3) does not speak to records accuracy or require that records be perfect.⁷⁵ • Regardless, the map most likely showed the correct valve position.⁷⁶ • SED did not allege a section 451 violation in its direct testimony, and is therefore barred from raising the new claim.⁷⁷ To the extent SED alleges section 192.605(b)(3) is the basis for the alleged section 451 violation, the same arguments apply. 	Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u> <ul style="list-style-type: none"> • SED proposes a penalty of \$100,000 for PG&E's alleged violation of sections 192.605(b)(3) and 451.⁷⁸ • SED's penalty calculation is based on two alleged occasions when inaccurate information was provided (\$50,000 x 2 = \$100,000).⁷⁹ 	Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u> <ul style="list-style-type: none"> • No penalty is warranted because the incident is out of scope, and SED has not met its burden of proof.⁸⁰ • In addition, due process requires PG&E to have received notice of the section 451 violation when SED filed its direct testimony, and to the extent the violation overlaps with the section 192.605(b)(3) violation, SED has not met its burden of proof.⁸¹
Non-Recordkeeping: <ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A

SAN FRANCISCO, PALOU AVENUE (APR. 8, 2014)

- This incident involved a PG&E excavation crew digging into a service line due to a failure to mark the main.⁸²
- There were no reported injuries.⁸³

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
Recordkeeping: <ul style="list-style-type: none"> • SED alleges no recordkeeping failure.⁸⁴ 	Recordkeeping: <ul style="list-style-type: none"> • This is not a recordkeeping incident. • SED does not allege that the incident was the result of an inaccurate or missing record.⁸⁵ 	Recordkeeping: <ul style="list-style-type: none"> • N/A 	Recordkeeping: <ul style="list-style-type: none"> • N/A
Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)</u> <ul style="list-style-type: none"> • SED alleges that PG&E failed to provide accurate temporary marking for its subsurface facilities, in violation of sections 192.614(c)(5) and 4216.3(a)(1).⁸⁶ 	Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)</u> <ul style="list-style-type: none"> • Section 192.614(c)(5), addressing requirements for written damage prevention programs, does not relate to recordkeeping.⁸⁷ Moreover, PG&E's Damage Prevention Handbook, first published in Oct. 2013 and updated in March 2014, complies with the regulation.⁸⁸ • Section 4216.3(a)(1), addressing "Locating and Field Marking of Subsurface Installations," does not relate to recordkeeping.⁸⁹ 	Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)</u> <ul style="list-style-type: none"> • SED proposes a penalty of \$50,000 for PG&E's alleged one-time violation of sections 192.614(c)(5) and 4216.3(a)(1).⁹⁰ 	Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)</u> <ul style="list-style-type: none"> • No penalty is warranted because the incident and the violations are out of scope.⁹¹ • Furthermore, PG&E's Damage Prevention Handbook complies with section 192.614(c)(5).⁹²

SAN JOSE, S. MARKET STREET (NOV. 7, 2014) (SAN JOSE I)

- PG&E and the excavator failed to mutually agree on or reschedule a locate and mark.⁹³
- On the date of the incident, the excavator began digging before PG&E was able to apply field marks to the excavation site, resulting in a dig-in to a plastic distribution main.⁹⁴
- There were no reported injuries.⁹⁵

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
Recordkeeping: <u>49 C.F.R. § 192.605(a)</u> <ul style="list-style-type: none"> • SED alleges that PG&E failed to follow the rule for making direct contact in PG&E's Damage Prevention Handbook TD-5811M, in violation of section 192.605(a).⁹⁶ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)</u> <ul style="list-style-type: none"> • This is not a recordkeeping incident. • There is no allegation that PG&E's maps were incorrect or that records contributed in any way to this incident.⁹⁷ • SED has not proven that PG&E failed to prepare or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.605(a), because the rule for making direct contact in PG&E's Damage Prevention Handbook TD-5811 is not a recordkeeping procedure.⁹⁸ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)</u> <ul style="list-style-type: none"> • SED proposes a penalty of \$50,000 for PG&E's alleged one-time violation of section 192.605(a).⁹⁹ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)</u> <ul style="list-style-type: none"> • No penalty is warranted because the incident and violation¹⁰⁰ are out of scope, and because SED has not met its burden of proof.¹⁰¹
Non-Recordkeeping: <u>Cal. Gov't Code § 4216.3(a)(1)</u> <ul style="list-style-type: none"> • SED alleges that PG&E failed to locate and mark its subsurface facilities, in violation of section 4216.3(a)(1).¹⁰² 	Non-Recordkeeping: <u>Cal. Gov't Code § 4216.3(a)(1)</u> <ul style="list-style-type: none"> • Section 4216.3(a)(1), addressing "Locating and Field Marking of Subsurface Installations," does not relate to recordkeeping.¹⁰³ 	Non-Recordkeeping: <u>Cal. Gov't Code § 4216.3(a)(1)</u> <ul style="list-style-type: none"> • SED proposes a penalty of \$50,000 for PG&E's alleged one-time violation of section 4216.3(a)(1).¹⁰⁴ 	Non-Recordkeeping: <u>Cal. Gov't Code § 4216.3(a)(1)</u> <ul style="list-style-type: none"> • No penalty is warranted because the incident and the violation are out of scope.¹⁰⁵

Incidents Potentially Related to Recordkeeping

MOUNTAIN VIEW, CHARLESTON ROAD (JULY 30, 2013)

- This incident arose out of a construction project in which the PG&E crew was unaware that a steel service line casing involved in its welding work had an inserted plastic line.¹⁰⁶
- The plastic insert, which PG&E believes was installed some time between 1972 and the mid-1980s, was neither identified in the construction documents nor on the plat map.¹⁰⁷
- A PG&E welder welded a tap fitting onto the steel service line and the insert melted, causing a release of gas.¹⁰⁸
- There were no reported injuries.¹⁰⁹

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
Recordkeeping: <u>49 C.F.R. § 192.605(a)</u> <ul style="list-style-type: none"> SED alleges that PG&E did not follow an unspecified procedure to keep its maps and records updated and accurate, in violation of section 192.605(a).¹¹⁰ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)</u> <ul style="list-style-type: none"> SED has not proven that PG&E failed to prepare or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.605(a), because SED does not cite any recordkeeping procedure.¹¹¹ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)</u> <ul style="list-style-type: none"> SED proposes a total penalty of \$5.786 million for PG&E's alleged violation of section 192.605(a).¹¹² SED's penalty calculation is based on a continuing violation from June 1972 to July 30, 2013: <ul style="list-style-type: none"> 6/1/1972 to 12/31/1993: \$2,000 monthly.¹¹³ 1/1/1994 to 12/31/2011: \$20,000 monthly.¹¹⁴ 1/1/2012 to 7/30/2013: \$50,000 monthly.¹¹⁵ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)</u> <ul style="list-style-type: none"> No penalty is warranted because SED has not met its burden of proof.¹¹⁶ Although PG&E disagrees that SED has proven the alleged violations, PG&E acknowledges that it did not meet the expectations it sets for itself. Therefore, if the Commission finds that violations have occurred, PG&E agrees that the maximum penalty is \$5.786 million.¹¹⁷

MOUNTAIN VIEW, CHARLESTON ROAD (JULY 30, 2013)

- This incident arose out of a construction project in which the PG&E crew was unaware that a steel service line casing involved in its welding work had an inserted plastic line.¹⁰⁶
- The plastic insert, which PG&E believes was installed some time between 1972 and the mid-1980s, was neither identified in the construction documents nor on the plat map.¹⁰⁷
- A PG&E welder welded a tap fitting onto the steel service line and the insert melted, causing a release of gas.¹⁰⁸
- There were no reported injuries.¹⁰⁹

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u> <ul style="list-style-type: none"> • SED alleges that PG&E provided inaccurate maps and records to field personnel, in violation of sections 192.605(b)(3) and 451.¹¹⁸ 	Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u> <ul style="list-style-type: none"> • PG&E does not contest the violation of section 192.605(b)(3).¹¹⁹ • SED did not allege a section 451 violation in its direct testimony, and is therefore barred from raising the new claim.¹²⁰ 	Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u> <ul style="list-style-type: none"> • SED proposes a penalty of \$50,000 for PG&E's alleged one-time violation of sections 192.605(b)(3) and 451.¹²¹ 	Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u> <ul style="list-style-type: none"> • PG&E does not contest the alleged violation of section 192.605(b)(3) and acknowledges that it did not meet the expectations it sets for itself. Therefore, if the Commission finds that the violation has occurred, PG&E agrees that the maximum penalty is \$50,000.¹²² • No penalty is warranted for the section 451 violation because due process requires PG&E to have received notice of the violation when SED filed its direct testimony, and to the extent the violation overlaps with the section 192.605(b)(3) violation, SED has not met its burden of proof.¹²³
Non-Recordkeeping: <ul style="list-style-type: none"> • Withdrawn.¹²⁴ 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A

ALAMO, DANVILLE ROAD (JULY 24, 2013)

- This incident involved construction work in which a locator was unable to precisely locate a pipe due to flooding in the area of excavation, which reduced his instrument's capabilities.¹²⁵
- The available map showed the pipe's general location but not its exact footage or specifications.¹²⁶
- The locator instructed the contractor to hand-dig but the contractor failed to do so, and while digging mechanically he struck the pipe.¹²⁷
- There were no reported injuries.¹²⁸

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
Recordkeeping: <ul style="list-style-type: none">• SED does not allege any recordkeeping failure.¹²⁹	Recordkeeping: <ul style="list-style-type: none">• N/A	Recordkeeping: <ul style="list-style-type: none">• N/A	Recordkeeping: <ul style="list-style-type: none">• N/A

ALAMO, DANVILLE ROAD (JULY 24, 2013)

- This incident involved construction work in which a locator was unable to precisely locate a pipe due to flooding in the area of excavation, which reduced his instrument's capabilities.¹²⁵
- The available map showed the pipe's general location but not its exact footage or specifications.¹²⁶
- The locator instructed the contractor to hand-dig but the contractor failed to do so, and while digging mechanically he struck the pipe.¹²⁷
- There were no reported injuries.¹²⁸

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)*</u></p> <ul style="list-style-type: none"> • SED alleges that PG&E personnel left the work site without locating its gas lines, in violation of sections 192.614(c)(5) and 4216.3(a)(1).¹³⁰ 	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)*</u></p> <ul style="list-style-type: none"> • The pipe could not be located precisely due to flooded conditions.¹³¹ • SED did not allege a section 192.614(c)(5) violation in its direct testimony, and is therefore barred from raising the new claim.¹³² • Moreover, this section addresses requirements for written damage prevention programs and does not relate to recordkeeping.¹³³ Indeed, PG&E's Damage Prevention Handbook, first published in Oct. 2013 and updated in March 2014, complies with the regulation. Nor is there any evidence that prior damage prevention practices were deficient.¹³⁴ • Section 4216.3(a)(1), addressing "Locating and Field Marking of Subsurface Installations," does not relate to recordkeeping.¹³⁵ 	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)*</u></p> <ul style="list-style-type: none"> • SED proposes a penalty of \$50,000 for PG&E's alleged one-time violation of sections 192.614(c)(5) and 4216.3(a)(1).¹³⁶ 	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)*</u></p> <ul style="list-style-type: none"> • No penalty is warranted because the violations are out of scope.¹³⁷ • In addition, due process requires PG&E to have received notice of the section 192.614(c)(5) violation when SED filed its direct testimony.¹³⁸ • Moreover, PG&E's Damage Prevention Handbook complies with section 192.614(c)(5), and there is no evidence that past damage prevention practices were deficient.¹³⁹

ALAMO, DANVILLE ROAD (JULY 24, 2013)

- This incident involved construction work in which a locator was unable to precisely locate a pipe due to flooding in the area of excavation, which reduced his instrument's capabilities.¹²⁵
- The available map showed the pipe's general location but not its exact footage or specifications.¹²⁶
- The locator instructed the contractor to hand-dig but the contractor failed to do so, and while digging mechanically he struck the pipe.¹²⁷
- There were no reported injuries.¹²⁸

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
Non-Recordkeeping: <u>Cal. Pub. Util. Code § 451</u> <ul style="list-style-type: none"> • SED alleges that PG&E personnel left the work site during an emergency without locating its gas lines, in violation of section 451.¹⁴⁰ 	Non-Recordkeeping: <u>Cal. Pub. Util. Code § 451</u> <ul style="list-style-type: none"> • The pipe could not be located precisely due to flooded conditions.¹⁴¹ SED has not identified any recordkeeping issue.¹⁴² • Section 451 does not incorporate any specific recordkeeping requirements or standards.¹⁴³ 	Non-Recordkeeping: <u>Cal. Pub. Util. Code § 451</u> <ul style="list-style-type: none"> • SED proposes a penalty of \$50,000 for PG&E's alleged one-time violation of section 451.¹⁴⁴ 	Non-Recordkeeping: <u>Cal. Pub. Util. Code § 451</u> <ul style="list-style-type: none"> • No penalty is warranted because the violation is out of scope.¹⁴⁵

SACRAMENTO, F STREET (OCT. 31, 2011)

- This incident involved a contractor striking and damaging a mismarked plastic service line.¹⁴⁶ The mismark was due to the line not being accurately mapped to reflect the presence of two offsets.¹⁴⁷
- There were no reported injuries.¹⁴⁸

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u> <ul style="list-style-type: none"> • SED alleges that PG&E failed to follow its written procedures to maintain and update its operating maps and records, in violation of section 192.605(a).¹⁴⁹ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u> <ul style="list-style-type: none"> • SED did not allege a section 192.605(a) violation in its direct testimony, and is therefore barred from raising the new claim.¹⁵⁰ • Moreover, SED has not proven that PG&E failed to prepare or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.605(a), because SED does not cite any recordkeeping procedure.¹⁵¹ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u> <ul style="list-style-type: none"> • SED proposes a penalty of \$20,000 for PG&E's alleged one-time violation of section 192.605(a).¹⁵² 	Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u> <ul style="list-style-type: none"> • No penalty is warranted because due process requires PG&E to have received notice of the violation when SED filed its direct testimony. In addition, SED has not met its burden of proof.¹⁵³

SACRAMENTO, F STREET (OCT. 31, 2011)

- This incident involved a contractor striking and damaging a mismarked plastic service line.¹⁴⁶ The mismark was due to the line not being accurately mapped to reflect the presence of two offsets.¹⁴⁷
- There were no reported injuries.¹⁴⁸

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • SED alleges that PG&E provided inaccurate maps and records to field personnel, in violation of sections 192.605(b)(3) and 451.¹⁵⁴ 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • SED has not shown that PG&E's O&M Manual lacked procedures for making maps/records available, as required by section 192.605(b)(3). PG&E maintained such procedures.¹⁵⁵ • Section 192.605(b)(3) does not speak to records accuracy or require that records be perfect.¹⁵⁶ • SED did not allege a section 451 violation in its direct testimony, and is therefore barred from raising the new claim.¹⁵⁷ To the extent SED alleges section 192.605(b)(3) is the basis for the alleged section 451 violation, the same arguments apply. 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • SED proposes a penalty of \$20,000 for PG&E's alleged one-time violation of sections 192.605(b)(3) and 451.¹⁵⁸ 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • No penalty is warranted because SED has not met its burden of proof.¹⁵⁹ • In addition, due process requires PG&E to have received notice of the section 451 violation when SED filed its direct testimony, and to the extent the violation overlaps with the section 192.605(b)(3) violation, SED has not met its burden of proof.¹⁶⁰

SACRAMENTO, F STREET (OCT. 31, 2011)

- This incident involved a contractor striking and damaging a mismarked plastic service line.¹⁴⁶ The mismark was due to the line not being accurately mapped to reflect the presence of two offsets.¹⁴⁷
- There were no reported injuries.¹⁴⁸

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)</u></p> <ul style="list-style-type: none"> • SED alleges that PG&E failed to provide accurate temporary marking for its subsurface facilities, in violation of sections 192.614(c)(5) and 4216.3(a)(1).¹⁶¹ 	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)</u></p> <ul style="list-style-type: none"> • Section 192.614(c)(5), addressing requirements for written damage prevention programs, does not relate to recordkeeping.¹⁶² Moreover, PG&E's Damage Prevention Handbook, first published in Oct. 2013 and updated in March 2014, complies with the regulation. Nor is there any evidence that prior damage prevention practices were deficient.¹⁶³ • Section 4216.3(a)(1), addressing "Locating and Field Marking of Subsurface Installations," does not relate to recordkeeping.¹⁶⁴ 	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)</u></p> <ul style="list-style-type: none"> • SED proposes a penalty of \$20,000 for PG&E's alleged one-time violation of sections 192.614(c)(5) and 4216.3(a)(1).¹⁶⁵ 	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)</u></p> <ul style="list-style-type: none"> • No penalty is warranted because the violations are out of scope.¹⁶⁶ • In addition, PG&E's Damage Prevention Handbook complies with section 192.614(c)(5), and there is no evidence that past damage prevention practices were deficient.¹⁶⁷

KENTFIELD, GOODHILL ROAD AND DIABLO DRIVE (APR. 1, 2011)

- This incident arose out of construction work in which a water contractor was excavating and hit a plastic main that was not indicated on the plat map and on which PG&E had failed to install tracer wire.¹⁶⁸
- There were no reported injuries.¹⁶⁹

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u> <ul style="list-style-type: none"> • SED alleges that PG&E failed to follow its written procedures to maintain and update its operating maps and records, in violation of section 192.605(a).¹⁷⁰ • Withdrawn.¹⁷⁶ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u> <ul style="list-style-type: none"> • SED did not allege a section 192.605(a) violation in its direct testimony, and is therefore barred from raising the new claim.¹⁷¹ • Moreover, SED has not proven that PG&E failed to prepare or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.605(a), because SED does not cite any recordkeeping procedure.¹⁷² • N/A 	Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u> <ul style="list-style-type: none"> • SED proposes a total penalty of \$60,000 for PG&E's alleged violation of section 192.605(a).¹⁷³ • SED's penalty calculation is based on a continuing violation from 12/23/2010 to 4/1/2011: \$20,000 monthly.¹⁷⁴ • N/A 	Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u> <ul style="list-style-type: none"> • No penalty is warranted because due process requires PG&E to have received notice of the violation when SED filed its direct testimony. In addition, SED has not met its burden of proof.¹⁷⁵ • N/A
Non-Recordkeeping: <u>49 C.F.R. § 192.321(e)</u> <ul style="list-style-type: none"> • SED alleges that PG&E failed to install tracer wire on a replacement plastic main, in violation of section 192.321(e).¹⁷⁷ 	Non-Recordkeeping: <u>49 C.F.R. § 192.321(e)</u> <ul style="list-style-type: none"> • Section 192.321(e), addressing the installation of tracer wire when installing plastic pipe, does not relate to recordkeeping.¹⁷⁸ 	Non-Recordkeeping: <u>49 C.F.R. § 192.321(e)</u> <ul style="list-style-type: none"> • SED proposes a penalty of \$20,000 for PG&E's alleged one-time violation of section 192.321(e).¹⁷⁹ 	Non-Recordkeeping: <u>49 C.F.R. § 192.321(e)</u> <ul style="list-style-type: none"> • No penalty is warranted because the violation is out of scope.¹⁸⁰

KENTFIELD, GOODHILL ROAD AND DIABLO DRIVE (APR. 1, 2011)

- This incident arose out of construction work in which a water contractor was excavating and hit a plastic main that was not indicated on the plat map and on which PG&E had failed to install tracer wire.¹⁶⁸
- There were no reported injuries.¹⁶⁹

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)*</u></p> <ul style="list-style-type: none"> • SED alleges that PG&E failed to mark a plastic main in the area of excavation, in violation of sections 192.614(c)(5) and 4216.3(a)(1).¹⁸¹ 	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)*</u></p> <ul style="list-style-type: none"> • Section 192.614(c)(5), addressing requirements for written damage prevention programs, does not relate to recordkeeping.¹⁸² Moreover, PG&E's Damage Prevention Handbook, first published in Oct. 2013 and updated in March 2014, complies with the regulation. Nor is there any evidence that prior damage prevention practices were deficient.¹⁸³ • SED did not allege a section 4216.3(a)(1) violation in its direct testimony, and is therefore barred from raising the new claim.¹⁸⁴ Moreover, Section 4216.3(a)(1), addressing "Locating and Field Marking of Subsurface Installations," does not relate to recordkeeping.¹⁸⁵ 	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)*</u></p> <ul style="list-style-type: none"> • SED proposes a penalty of \$20,000 for PG&E's alleged one-time violation of sections 192.614(c)(5) and 4216.3(a)(1).¹⁸⁶ 	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)*</u></p> <ul style="list-style-type: none"> • No penalty is warranted because the violations are out of scope.¹⁸⁷ • In addition, due process requires PG&E to have received notice of the section 4216.3(a)(1) violation when SED filed its direct testimony.¹⁸⁸ • Moreover, PG&E's Damage Prevention Handbook complies with section 192.614(c)(5), and there is no evidence that past damage prevention practices were deficient.¹⁸⁹

MILPITAS, GREAT MALL PARKWAY (MAR. 4, 2013) (MILPITAS II)

- A third-party contractor was excavating to install a sewer main when it dug into a plastic distribution main.¹⁹⁰
- The nearest Electronic Test Station (ETS) that the locate crew should have used to connect the tracer equipment was not indicated on the plat map, leading the crew to use a remote ETS, which resulted in a mis-mark.¹⁹¹
- There were no injuries.¹⁹²

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u> <ul style="list-style-type: none"> • SED alleges that PG&E failed to follow its written procedures to maintain and update its operating maps and records, in violation of section 192.605(a).¹⁹³ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u> <ul style="list-style-type: none"> • SED did not allege a section 192.605(a) violation in its direct testimony, and is therefore barred from raising the new claim.¹⁹⁴ • Moreover, SED has not proven that PG&E failed to prepare or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.605(a), because SED does not cite any recordkeeping procedure.¹⁹⁵ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u> <ul style="list-style-type: none"> • SED proposes a total penalty of \$5.02 million for PG&E's alleged violation of section 192.605(a).¹⁹⁶ • SED's penalty calculation is based on a continuing violation from 1994 to 3/4/2013: <ul style="list-style-type: none"> ○ 1/1/1994 to 12/31/2011: \$20,000 monthly.¹⁹⁷ ○ 1/1/2012 to 3/4/2013: \$50,000 monthly.¹⁹⁸ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u> <ul style="list-style-type: none"> • No penalty is warranted because due process requires PG&E to have received notice of the violation when SED filed its direct testimony. In addition, SED has not met its burden of proof.¹⁹⁹

MILPITAS, GREAT MALL PARKWAY (MAR. 4, 2013) (MILPITAS II)

- A third-party contractor was excavating to install a sewer main when it dug into a plastic distribution main.¹⁹⁰
- The nearest Electronic Test Station (ETS) that the locate crew should have used to connect the tracer equipment was not indicated on the plat map, leading the crew to use a remote ETS, which resulted in a mis-mark.¹⁹¹
- There were no injuries.¹⁹²

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • SED alleges that PG&E provided inaccurate maps and records to field personnel, in violation of sections 192.605(b)(3) and 451.²⁰⁰ 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • SED has not shown that PG&E's O&M Manual lacked procedures for making maps/records available, as required by section 192.605(b)(3). PG&E maintained such procedures.²⁰¹ • Section 192.605(b)(3) does not speak to records accuracy or require that records be perfect.²⁰² • SED did not allege a section 451 violation in its direct testimony, and is therefore barred from raising the new claim.²⁰³ To the extent SED alleges section 192.605(b)(3) is the basis for the alleged section 451 violation, the same arguments apply. 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • SED proposes a penalty of \$50,000 for PG&E's alleged one-time violation of sections 192.605(b)(3) and 451.²⁰⁴ 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • No penalty is warranted because SED has not met its burden of proof.²⁰⁵ • In addition, due process requires PG&E to have received notice of the section 451 violation when SED filed its direct testimony, and to the extent the violation overlaps with the section 192.605(b)(3) violation, SED has not met its burden of proof.²⁰⁶

MILPITAS, GREAT MALL PARKWAY (MAR. 4, 2013) (MILPITAS II)

- A third-party contractor was excavating to install a sewer main when it dug into a plastic distribution main.¹⁹⁰
- The nearest Electronic Test Station (ETS) that the locate crew should have used to connect the tracer equipment was not indicated on the plat map, leading the crew to use a remote ETS, which resulted in a mis-mark.¹⁹¹
- There were no injuries.¹⁹²

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov’t Code § 4216.3(a)(1)*</u></p> <ul style="list-style-type: none"> • SED alleges that PG&E failed to provide accurate temporary marking for its subsurface facilities, in violation of sections 192.614(c)(5) and 4216.3(a)(1).²⁰⁷ 	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov’t Code § 4216.3(a)(1)*</u></p> <ul style="list-style-type: none"> • SED did not allege a section 192.614(c)(5) violation in its direct testimony, and is therefore barred from raising the new claim.²⁰⁸ • Moreover, this section addresses requirements for written damage prevention programs and does not relate to recordkeeping.²⁰⁹ Indeed, PG&E’s Damage Prevention Handbook, first published in Oct. 2013 and updated in March 2014, complies with the regulation. Nor is there any evidence that prior damage prevention practices were deficient.²¹⁰ • Section 4216.3(a)(1), addressing “Locating and Field Marking of Subsurface Installations,” does not relate to recordkeeping.²¹¹ 	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov’t Code § 4216.3(a)(1)*</u></p> <ul style="list-style-type: none"> • SED proposes a penalty of \$50,000 for PG&E’s alleged one-time violation of sections 192.614(c)(5) and 4216.3(a)(1).²¹² 	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov’t Code § 4216.3(a)(1)*</u></p> <ul style="list-style-type: none"> • No penalty is warranted because the violations are out of scope.²¹³ • In addition, due process requires PG&E to have received notice of violations when SED filed its direct testimony.²¹⁴ • Moreover, PG&E’s Damage Prevention Handbook complies with section 192.614(c)(5), and there is no evidence that past damage prevention practices were deficient.²¹⁵

CARMEL, GUADALUPE STREET AND 3RD AVENUE (MAR. 3, 2014)

- This incident arose out of a construction project in which the PG&E crew was unaware that a steel pipe involved in their welding and tapping work had an inserted plastic main.²¹⁶
- The plastic main, which was installed sometime in 1997 or 1998, was not reflected on the plat map provided to the contractors and PG&E welding crews.²¹⁷
- In the course of welding and tapping a save-a-valve on the steel pipe to install a pressure gauge, a PG&E welder tapped into the plastic main, causing a release of gas that led to the explosion of a nearby home.²¹⁸

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Recordkeeping:</p> <p><u>49 C.F.R. § 192.605(a)</u></p> <ul style="list-style-type: none"> • SED alleges that PG&E failed to keep its maps and records updated and accurate, in violation of section 192.605(a).²¹⁹ 	<p>Recordkeeping:</p> <p><u>49 C.F.R. § 192.605(a)</u></p> <ul style="list-style-type: none"> • SED has not proven that PG&E failed to prepare or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.605(a), because SED does not cite any recordkeeping procedure.²²⁰ 	<p>Recordkeeping:</p> <p><u>49 C.F.R. § 192.605(a)</u></p> <ul style="list-style-type: none"> • SED proposes a total penalty of \$20.73 million for PG&E's alleged violation of section 192.605(a).²²¹ • SED's penalty calculation is based on a continuing violation from 7/17/1997 to 3/3/2014: <ul style="list-style-type: none"> ○ 7/17/1997 to 12/31/2011: \$20,000 weekly.²²² ○ 1/1/2012 to 3/3/2014: \$50,000 weekly.²²³ 	<p>Recordkeeping:</p> <p><u>49 C.F.R. § 192.605(a)</u></p> <ul style="list-style-type: none"> • No penalty is warranted because SED has not met its burden of proof.²²⁴ • Although PG&E disagrees that SED has proven the alleged violation, PG&E acknowledges that it did not meet the expectations it sets for itself. Therefore, if the Commission finds that a violation has occurred, PG&E agrees that the maximum penalty is \$9.88 million, which is equivalent to SED's proposed penalty reduced by the \$10.85 million that PG&E has already paid in connection with the Carmel incident.²²⁵

CARMEL, GUADALUPE STREET AND 3RD AVENUE (MAR. 3, 2014)

- This incident arose out of a construction project in which the PG&E crew was unaware that a steel pipe involved in their welding and tapping work had an inserted plastic main.²¹⁶
- The plastic main, which was installed sometime in 1997 or 1998, was not reflected on the plat map provided to the contractors and PG&E welding crews.²¹⁷
- In the course of welding and tapping a save-a-valve on the steel pipe to install a pressure gauge, a PG&E welder tapped into the plastic main, causing a release of gas that led to the explosion of a nearby home.²¹⁸

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451</u> <ul style="list-style-type: none"> • SED alleges that PG&E provided inaccurate maps and records to field personnel, in violation of sections 192.605(b)(3) and 451.²²⁶ 	Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451</u> <ul style="list-style-type: none"> • SED has not shown that PG&E's O&M Manual lacked procedures for making maps/records available, as required by section 192.605(b)(3). PG&E maintained such procedures.²²⁷ • Section 192.605(b)(3) does not speak to records accuracy or require that records be perfect.²²⁸ • To the extent SED alleges section 192.605(b)(3) is the basis for the alleged section 451 violation, the same arguments apply. 	Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451</u> <ul style="list-style-type: none"> • SED proposes a penalty of \$50,000 for PG&E's alleged one-time violation of sections 192.605(b)(3) and 451.²²⁹ 	Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451</u> <ul style="list-style-type: none"> • No penalty is warranted because SED has not met its burden of proof.²³⁰ • In addition, due process requires PG&E to have received notice of the section 451 violation when SED filed its direct testimony, and to the extent the violation overlaps with the section 192.605(b)(3) violation, SED has not met its burden of proof.²³¹
Non-Recordkeeping: <ul style="list-style-type: none"> • Withdrawn.²³² 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A

ROSEVILLE, HARDING BOULEVARD (OCT. 21, 2010)

- This incident involved third-party damage due to an inaccurate mark-out of a plastic main.²³³ The plat map incorrectly showed the main to be located in a joint trench, when in fact it was in an offset trench.²³⁴
- There were no reported injuries.²³⁵

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • SED alleges that PG&E provided inaccurate maps and records to field personnel, in violation of sections 192.605(b)(3) and 451.²³⁶ 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • SED has not shown that PG&E's O&M Manual lacked procedures for making maps/records available, as required by section 192.605(b)(3). PG&E maintained such procedures.²³⁷ • Section 192.605(b)(3) does not speak to records accuracy or require that records be perfect.²³⁸ • SED did not allege a section 451 violation in its direct testimony, and is therefore barred from raising the new claim.²³⁹ To the extent SED alleges section 192.605(b)(3) is the basis for the alleged section 451 violation, the same arguments apply. 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • SED proposes a penalty of \$20,000 for PG&E's alleged one-time violation of sections 192.605(b)(3) and 451.²⁴⁰ 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • No penalty is warranted because SED has not met its burden of proof.²⁴¹ • In addition, due process requires PG&E to have received notice of the section 451 violation when SED filed its direct testimony, and to the extent the violation overlaps with the section 192.605(b)(3) violation, SED has not met its burden of proof.²⁴²

ROSEVILLE, HARDING BOULEVARD (OCT. 21, 2010)

- This incident involved third-party damage due to an inaccurate mark-out of a plastic main.²³³ The plat map incorrectly showed the main to be located in a joint trench, when in fact it was in an offset trench.²³⁴
- There were no reported injuries.²³⁵

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)*</u></p> <ul style="list-style-type: none"> • SED alleges that PG&E failed to provide accurate temporary marking for its subsurface facilities, in violation of sections 192.614(c)(5) and 4216.3(a)(1).²⁴³ 	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)*</u></p> <ul style="list-style-type: none"> • SED did not allege a section 192.614(c)(5) violation in its direct testimony, and is therefore barred from raising the new claim.²⁴⁴ • Moreover, this section addresses requirements for written damage prevention programs and does not relate to recordkeeping.²⁴⁵ Indeed, PG&E's Damage Prevention Handbook, first published in Oct. 2013 and updated in March 2014, complies with the regulation. Nor is there any evidence that prior damage prevention practices were deficient.²⁴⁶ • Section 4216.3(a)(1), addressing "Locating and Field Marking of Subsurface Installations," does not relate to recordkeeping.²⁴⁷ 	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)*</u></p> <ul style="list-style-type: none"> • SED proposes a penalty of \$20,000 for PG&E's alleged one-time violation of sections 192.614(c)(5) and 4216.3(a)(1).²⁴⁸ 	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)*</u></p> <ul style="list-style-type: none"> • No penalty is warranted because the violations are out of scope.²⁴⁹ • In addition, due process requires PG&E to have received notice of the section 192.614(c)(5) violation when SED filed its direct testimony.²⁵⁰ • Moreover, PG&E's Damage Prevention Handbook complies with section 192.614(c)(5), and there is no evidence that past damage prevention practices were deficient.²⁵¹

MORGAN HILL, MAIN STREET (JUNE 21, 2012)

- A third-party contractor was excavating to install a new water main when he struck a steel gas service line, partially pulling the service tee off of its connection to the steel main and resulting in the release of gas.²⁵²
- The damaged service line was deactivated at the property line in 1966 but the plat map was not updated to show it was a stub, and it remained on the map as a complete service.²⁵³ Because of the inaccurate map, the service was not visible in the field and was difficult to locate.²⁵⁴
- There were no injuries or property damage as a result of this incident.²⁵⁵

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
Recordkeeping: <u>49 C.F.R. § 192.605(a)</u> <ul style="list-style-type: none"> • SED alleges that PG&E failed to follow its procedure TD-9500P-16, Deactivation and/or Retirement of Underground Gas Facilities, in violation of section 192.605(a).²⁵⁶ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)</u> <ul style="list-style-type: none"> • SED has not proven that PG&E failed to prepare or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.605(a), because TD-9500P-16 is not a recordkeeping procedure.²⁵⁷ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)</u> <ul style="list-style-type: none"> • SED proposes a total penalty of \$5.278 million for PG&E's alleged violation of section 192.605(a).²⁵⁸ • SED's penalty calculation is based on a continuing violation from July 1966 until 6/21/2012: <ul style="list-style-type: none"> ○ 7/1/1966 to 12/31/1993: \$2,000 monthly.²⁵⁹ ○ 1/1/1994 to 12/31/2011: \$20,000 monthly.²⁶⁰ ○ 1/1/2012 to 6/21/2012: \$50,000 monthly.²⁶¹ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)</u> <ul style="list-style-type: none"> • No penalty is warranted because the violation is out of scope,²⁶² and SED has not met its burden of proof.²⁶³

MORGAN HILL, MAIN STREET (JUNE 21, 2012)

- A third-party contractor was excavating to install a new water main when he struck a steel gas service line, partially pulling the service tee off of its connection to the steel main and resulting in the release of gas.²⁵²
- The damaged service line was deactivated at the property line in 1966 but the plat map was not updated to show it was a stub, and it remained on the map as a complete service.²⁵³ Because of the inaccurate map, the service was not visible in the field and was difficult to locate.²⁵⁴
- There were no injuries or property damage as a result of this incident.²⁵⁵

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • SED alleges that PG&E provided inaccurate maps and records to field personnel, in violation of sections 192.605(b)(3) and 451.²⁶⁴ 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • SED has not shown that PG&E's O&M Manual lacked procedures for making maps/records available, as required by section 192.605(b)(3). PG&E maintained such procedures.²⁶⁵ • Section 192.605(b)(3) does not speak to records accuracy or require that records be perfect.²⁶⁶ • SED did not allege a section 451 violation in its direct testimony, and is therefore barred from raising the new claim.²⁶⁷ To the extent SED alleges section 192.605(b)(3) is the basis for the alleged section 451 violation, the same arguments apply. 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • SED proposes a penalty of \$50,000 for PG&E's alleged one-time violation of sections 192.605(b)(3) and 451.²⁶⁸ 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • No penalty is warranted because SED has not met its burden of proof.²⁶⁹ • In addition, due process requires PG&E to have received notice of the section 451 violation when SED filed its direct testimony, and to the extent the violation overlaps with the section 192.605(b)(3) violation, SED has not met its burden of proof.²⁷⁰

MORGAN HILL, MAIN STREET (JUNE 21, 2012)

- A third-party contractor was excavating to install a new water main when he struck a steel gas service line, partially pulling the service tee off of its connection to the steel main and resulting in the release of gas.²⁵²
- The damaged service line was deactivated at the property line in 1966 but the plat map was not updated to show it was a stub, and it remained on the map as a complete service.²⁵³ Because of the inaccurate map, the service was not visible in the field and was difficult to locate.²⁵⁴
- There were no injuries or property damage as a result of this incident.²⁵⁵

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)*</u></p> <ul style="list-style-type: none"> • SED alleges that PG&E failed to provide accurate temporary marking for its subsurface facilities, in violation of sections 192.614(c)(5) and 4216.3(a)(1).²⁷¹ <p>• Withdrawn.²⁸⁰</p>	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)*</u></p> <ul style="list-style-type: none"> • SED did not allege a section 192.614(c)(5) violation in its direct testimony, and is therefore barred from raising the new claim.²⁷² • Moreover, this section addresses requirements for written damage prevention programs and does not relate to recordkeeping.²⁷³ Indeed, PG&E's Damage Prevention Handbook, first published in Oct. 2013 and updated in March 2014, complies with the regulation. Nor is there any evidence that prior damage prevention practices were deficient.²⁷⁴ • Section 4216.3(a)(1), addressing "Locating and Field Marking of Subsurface Installations," does not relate to recordkeeping.²⁷⁵ <p>• N/A</p>	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)*</u></p> <ul style="list-style-type: none"> • SED proposes a penalty of \$50,000 for PG&E's alleged one-time violation of sections 192.614(c)(5) and 4216.3(a)(1).²⁷⁶ <p>• N/A</p>	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)*</u></p> <ul style="list-style-type: none"> • No penalty is warranted because the violations are out of scope.²⁷⁷ • In addition, due process requires PG&E to have received notice of the section 192.614(c)(5) violation when SED filed its direct testimony.²⁷⁸ • Moreover, PG&E's Damage Prevention Handbook complies with section 192.614(c)(5), and there is no evidence that past damage prevention practices were deficient.²⁷⁹ <p>• N/A</p>

LAFAYETTE, PLEASANT HILL ROAD (AUG. 27, 2013)

- This incident involved third-party damage to a service line due to an inaccurate plat map.²⁸¹
- The line had been removed from the map on account of an incorrect gas service record which indicated the service line was cut off.²⁸²
- There were no reported injuries.²⁸³

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Recordkeeping:</p> <p><u>49 C.F.R. §§ 192.605(a) and 192.727(b)</u></p> <ul style="list-style-type: none"> • SED alleges that PG&E failed to follow GTS Standard S4129, which is a procedure related to cutting off services at the main, and failed to abandon or deactivate its gas facilities, in violation of sections 192.605(a) and 192.727(b).²⁸⁴ 	<p>Recordkeeping:</p> <p><u>49 C.F.R. §§ 192.605(a) and 192.727(b)</u></p> <ul style="list-style-type: none"> • SED has not proven that PG&E failed to prepare, maintain, or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.605(a), because GTS Standard S4129 is not a recordkeeping procedure.²⁸⁵ • Section 192.727(b), which addresses the deactivation of abandoned mains, does not relate to recordkeeping.²⁸⁶ 	<p>Recordkeeping:</p> <p><u>49 C.F.R. §§ 192.605(a) and 192.727(b)</u></p> <ul style="list-style-type: none"> • SED proposes a penalty of \$20,000 for PG&E's alleged one-time violation of sections 192.605(a) and 192.727(b).²⁸⁷ 	<p>Recordkeeping:</p> <p><u>49 C.F.R. §§ 192.605(a) and 192.727(b)</u></p> <ul style="list-style-type: none"> • No penalty is warranted because the violations are out of scope,²⁸⁸ and SED has not met its burden of proof.²⁸⁹

LAFAYETTE, PLEASANT HILL ROAD (AUG. 27, 2013)

- This incident involved third-party damage to a service line due to an inaccurate plat map.²⁸¹
- The line had been removed from the map on account of an incorrect gas service record which indicated the service line was cut off.²⁸²
- There were no reported injuries.²⁸³

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)</u></p> <ul style="list-style-type: none"> • SED alleges that PG&E failed to provide accurate temporary marking for its subsurface facilities, in violation of sections 192.614(c)(5) and 4216.3(a)(1).²⁹⁰ 	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)</u></p> <ul style="list-style-type: none"> • Section 192.614(c)(5), addressing requirements for written damage prevention programs, does not relate to recordkeeping.²⁹¹ Moreover, PG&E's Damage Prevention Handbook, first published in Oct. 2013 and updated in March 2014, complies with the regulation. Nor is there any evidence that prior damage prevention practices were deficient.²⁹² • Section 4216.3(a)(1), addressing "Locating and Field Marking of Subsurface Installations," does not relate to recordkeeping.²⁹³ 	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)</u></p> <ul style="list-style-type: none"> • SED proposes a penalty of \$50,000 for PG&E's alleged one-time violation of sections 192.614(c)(5) and 4216.3(a)(1).²⁹⁴ 	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)</u></p> <ul style="list-style-type: none"> • No penalty is warranted because the violations are out of scope.²⁹⁵ • In addition, PG&E's Damage Prevention Handbook complies with section 192.614(c)(5), and there is no evidence that past damage prevention practices were deficient.²⁹⁶

CASTRO VALLEY, SAN MIGUEL AVENUE (SEPT. 17, 2010)

- This incident involved a construction project to dig a new storm drain.²⁹⁷
- A third-party contractor began work digging the drain when he struck a plastic service line that did not appear on the plat map.²⁹⁸
- Both 2005 and 2010 five-year leak surveys were conducted on this plat map.²⁹⁹
- There were no reported injuries.³⁰⁰

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Recordkeeping: <u>49 C.F.R. § 192.605(a)</u></p> <ul style="list-style-type: none"> • SED alleges that PG&E did not follow its Standard UO S4460 to keep its maps updated and accurate, in violation of section 192.605(a).³⁰¹ 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(a)</u></p> <ul style="list-style-type: none"> • SED has not proven that PG&E failed to prepare or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.605(a).³⁰² • SED has cited the wrong standard, as UO S4460 applies to transmission lines.³⁰³ 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(a)</u></p> <ul style="list-style-type: none"> • SED proposes a total penalty of \$1.38 million for PG&E's alleged violation of section 192.605(a).³⁰⁴ • SED's penalty calculation is based on a continuing violation from 2005 to 8/17/2010: \$20,000 monthly.³⁰⁵ 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(a)</u></p> <ul style="list-style-type: none"> • No penalty is warranted because SED has not met its burden of proof.³⁰⁶

CASTRO VALLEY, SAN MIGUEL AVENUE (SEPT. 17, 2010)

- This incident involved a construction project to dig a new storm drain.²⁹⁷
- A third-party contractor began work digging the drain when he struck a plastic service line that did not appear on the plat map.²⁹⁸
- Both 2005 and 2010 five-year leak surveys were conducted on this plat map.²⁹⁹
- There were no reported injuries.³⁰⁰

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • SED alleges that PG&E provided inaccurate maps and records to field personnel, in violation of sections 192.605(b)(3) and 451.³⁰⁷ 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • SED has not shown that PG&E's O&M Manual lacked procedures for making maps/records available, as required by section 192.605(b)(3). PG&E maintained such procedures.³⁰⁸ • Section 192.605(b)(3) does not speak to records accuracy or require that records be perfect.³⁰⁹ • SED did not allege a section 451 violation in its direct testimony, and is therefore barred from raising the new claim.³¹⁰ To the extent SED alleges section 192.605(b)(3) is the basis for the alleged section 451 violation, the same arguments apply. 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • SED proposes a penalty of \$20,000 for PG&E's alleged one-time violation of sections 192.605(b)(3) and 451.³¹¹ 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • No penalty is warranted because SED has not met its burden of proof.³¹² • In addition, due process requires PG&E to have received notice of the section 451 violation when SED filed its direct testimony, and to the extent the violation overlaps with the section 192.605(b)(3) violation, SED has not met its burden of proof.³¹³

CASTRO VALLEY, SAN MIGUEL AVENUE (SEPT. 17, 2010)

- This incident involved a construction project to dig a new storm drain.²⁹⁷
- A third-party contractor began work digging the drain when he struck a plastic service line that did not appear on the plat map.²⁹⁸
- Both 2005 and 2010 five-year leak surveys were conducted on this plat map.²⁹⁹
- There were no reported injuries.³⁰⁰

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)*</u></p> <ul style="list-style-type: none"> • SED alleges that PG&E failed to provide accurate temporary marking for its subsurface facilities, in violation of sections 192.614(c)(5) and 4216.3(a)(1).³¹⁴ 	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)*</u></p> <ul style="list-style-type: none"> • SED did not allege a section 192.614(c)(5) violation in its direct testimony, and is therefore barred from raising the new claim.³¹⁵ • Moreover, this section addresses requirements for written damage prevention programs and does not relate to recordkeeping.³¹⁶ Indeed, PG&E's Damage Prevention Handbook, first published in Oct. 2013 and updated in March 2014, complies with the regulation. Nor is there any evidence that prior damage prevention practices were deficient.³¹⁷ • SED did not allege a section 4216.3(a)(1) violation in its direct testimony, and is therefore barred from raising the new claim.³¹⁸ Moreover, section 4216.3(a)(1), addressing "Locating and Field Marking of Subsurface Installations," does not relate to recordkeeping.³¹⁹ 	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)*</u></p> <ul style="list-style-type: none"> • SED proposes a penalty of \$20,000 for PG&E's alleged one-time violation of sections 192.614(c)(5) and 4216.3(a)(1).³²⁰ 	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)*</u></p> <ul style="list-style-type: none"> • No penalty is warranted because the violations are out of scope.³²¹ • In addition, due process requires PG&E to have received notice of the violations when SED filed its direct testimony.³²² • Moreover, PG&E's Damage Prevention Handbook complies with section 192.614(c)(5), and there is no evidence that past damage prevention practices were deficient.³²³

SAN RAMON, SAN RAMON VALLEY BOULEVARD (AUG. 12, 2009)

- This incident involved third-party damage to an unmarked service line, which did not accurately appear on the plat map.³²⁴
- There were no reported injuries.³²⁵

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u></p> <ul style="list-style-type: none"> • SED alleges that PG&E failed to follow its written procedures to maintain and update its operating maps and records, in violation of section 192.605(a).³²⁶ 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u></p> <ul style="list-style-type: none"> • SED did not allege a section 192.605(a) violation in its direct testimony, and is therefore barred from raising the new claim.³²⁷ • Moreover, SED has not proven that PG&E failed to prepare or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.605(a), because SED does not cite any recordkeeping procedure.³²⁸ 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u></p> <ul style="list-style-type: none"> • SED proposes a total penalty of \$2.84 million for PG&E's alleged violation of section 192.605(a).³²⁹ • SED's penalty calculation is based on a continuing violation from 10/14/1997 to 8/12/2009: \$20,000 monthly.³³⁰ 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u></p> <ul style="list-style-type: none"> • No penalty is warranted because due process requires PG&E to have received notice of the violation when SED filed its direct testimony. In addition, SED has not met its burden of proof.³³¹

SAN RAMON, SAN RAMON VALLEY BOULEVARD (AUG. 12, 2009)

- This incident involved third-party damage to an unmarked service line, which did not accurately appear on the plat map.³²⁴
- There were no reported injuries.³²⁵

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • SED alleges that PG&E provided inaccurate maps and records to field personnel, in violation of sections 192.605(b)(3) and 451.³³² 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • SED has not shown that PG&E's O&M Manual lacked procedures for making maps/records available, as required by section 192.605(b)(3). PG&E maintained such procedures.³³³ • Section 192.605(b)(3) does not speak to records accuracy or require that records be perfect.³³⁴ • SED did not allege a section 451 violation in its direct testimony, and is therefore barred from raising the new claim.³³⁵ To the extent SED alleges section 192.605(b)(3) is the basis for the alleged section 451 violation, the same arguments apply. 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • SED proposes a penalty of \$20,000 for PG&E's alleged one-time violation of sections 192.605(b)(3) and 451.³³⁶ 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • No penalty is warranted because SED has not met its burden of proof.³³⁷ • In addition, due process requires PG&E to have received notice of the section 451 violation when SED filed its direct testimony, and to the extent the violation overlaps with the section 192.605(b)(3) violation, SED has not met its burden of proof.³³⁸

SAN RAMON, SAN RAMON VALLEY BOULEVARD (AUG. 12, 2009)

- This incident involved third-party damage to an unmarked service line, which did not accurately appear on the plat map.³²⁴
- There were no reported injuries.³²⁵

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)</u></p> <ul style="list-style-type: none"> • SED alleges that PG&E failed to provide accurate temporary marking for its subsurface facilities, in violation of sections 192.614(c)(5) and 4216.3(a)(1).³³⁹ 	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)</u></p> <ul style="list-style-type: none"> • Section 192.614(c)(5), addressing requirements for written damage prevention programs, does not relate to recordkeeping.³⁴⁰ Moreover, PG&E's Damage Prevention Handbook, first published in Oct. 2013 and updated in March 2014, complies with the regulation. Nor is there any evidence that prior damage prevention practices were deficient.³⁴¹ • Section 4216.3(a)(1), addressing "Locating and Field Marking of Subsurface Installations," does not relate to recordkeeping.³⁴² 	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)</u></p> <ul style="list-style-type: none"> • SED proposes a penalty of \$20,000 for PG&E's alleged one-time violation of sections 192.614(c)(5) and 4216.3(a)(1).³⁴³ 	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)</u></p> <ul style="list-style-type: none"> • No penalty is warranted because the violations are out of scope.³⁴⁴ • In addition, PG&E's Damage Prevention Handbook complies with section 192.614(c)(5), and there is no evidence that past damage prevention practices were deficient.³⁴⁵
<p><u>49 C.F.R. § 192.723(b)(2)</u></p> <ul style="list-style-type: none"> • SED alleges that PG&E failed to perform leak surveys of the service line since its installation which occurred prior to October 14, 1997, in violation of section 192.723(b)(2).³⁴⁶ 	<p><u>49 C.F.R. § 192.723(b)(2)</u></p> <ul style="list-style-type: none"> • Section 192.723(b)(2), addressing the frequency with which leak surveys must be conducted, does not relate to recordkeeping.³⁴⁷ 	<p><u>49 C.F.R. § 192.723(b)(2)</u></p> <ul style="list-style-type: none"> • SED proposes a total penalty of \$40,000 for PG&E's alleged violation of section 192.723(b)(2).³⁴⁸ • SED's penalty calculation is based on a continuing violation from 10/14/1997 to 8/12/2009: \$20,000 once every five years.³⁴⁹ 	<p><u>49 C.F.R. § 192.723(b)(2)</u></p> <ul style="list-style-type: none"> • No penalty is warranted because the violation is out of scope.³⁵⁰

SAN JOSE, TULLY ROAD (JAN. 20, 2015) (SAN JOSE II)

- This incident involved an unmapped steel stub that was not marked and that a contractor dug into.³⁵¹
- There were no reported injuries.³⁵²

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
Recordkeeping: <u>49 C.F.R. § 192.605(a)</u> <ul style="list-style-type: none"> • SED alleges that PG&E failed to follow Mapping Standard 410.2-1, in violation of section 192.605(a).³⁵³ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)</u> <ul style="list-style-type: none"> • SED has not proven that PG&E failed to prepare or follow a specific recordkeeping standard or procedure, including Mapping Standard 410.2-1, when the record was created, as required by section 192.605(a).³⁵⁴ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)</u> <ul style="list-style-type: none"> • SED proposes a penalty of \$50,000 for PG&E's alleged one-time violation of section 192.605(a).³⁵⁵ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)</u> <ul style="list-style-type: none"> • No penalty is warranted because SED has not met its burden of proof.³⁵⁶
Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u> <ul style="list-style-type: none"> • SED alleges that PG&E provided inaccurate maps and records to field personnel, in violation of sections 192.605(b)(3) and 451.³⁵⁷ 	Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u> <ul style="list-style-type: none"> • SED has not shown that PG&E's O&M Manual lacked procedures for making maps/records available, as required by section 192.605(b)(3). PG&E maintained such procedures.³⁵⁸ • Section 192.605(b)(3) does not speak to records accuracy or require that records be perfect.³⁵⁹ • SED did not allege a section 451 violation in its direct testimony, and is therefore barred from raising the new claim.³⁶⁰ To the extent SED alleges section 192.605(b)(3) is the basis for the alleged section 451 violation, the same arguments apply. 	Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u> <ul style="list-style-type: none"> • SED proposes a penalty of \$50,000 for PG&E's alleged one-time violation of sections 192.605(b)(3) and 451.³⁶¹ 	Recordkeeping: <u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u> <ul style="list-style-type: none"> • No penalty is warranted because SED has not met its burden of proof.³⁶² • In addition, due process requires PG&E to have received notice of the section 451 violation when SED filed its direct testimony, and to the extent the violation overlaps with the section 192.605(b)(3) violation, SED has not met its burden of proof.³⁶³

SAN JOSE, TULLY ROAD (JAN. 20, 2015) (SAN JOSE II)

- This incident involved an unmapped steel stub that was not marked and that a contractor dug into.³⁵¹
- There were no reported injuries.³⁵²

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov’t Code § 4216.3(a)(1)</u></p> <ul style="list-style-type: none"> • SED alleges that PG&E failed to provide accurate temporary marking for its subsurface facilities, in violation of sections 192.614(c)(5) and 4216.3(a)(1).³⁶⁴ 	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov’t Code § 4216.3(a)(1)</u></p> <ul style="list-style-type: none"> • Section 192.614(c)(5), addressing requirements for written damage prevention programs, does not relate to recordkeeping.³⁶⁵ Moreover, PG&E’s Damage Prevention Handbook, first published in Oct. 2013 and updated in March 2014, complies with the regulation.³⁶⁶ • Section 4216.3(a)(1), addressing “Locating and Field Marking of Subsurface Installations,” does not relate to recordkeeping.³⁶⁷ 	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov’t Code § 4216.3(a)(1)</u></p> <ul style="list-style-type: none"> • SED proposes a penalty of \$50,000 for PG&E’s alleged one-time violation of sections 192.614(c)(5) and 4216.3(a)(1).³⁶⁸ 	<p>Non-Recordkeeping: <u>49 C.F.R. § 192.614(c)(5) and Cal. Gov’t Code § 4216.3(a)(1)</u></p> <ul style="list-style-type: none"> • No penalty is warranted because the violations are out of scope.³⁶⁹ • In addition, PG&E’s Damage Prevention Handbook complies with section 192.614(c)(5).³⁷⁰

FRESNO, WEST ASHLAN AVENUE (SEPT. 24, 2014)

- This incident involved a dig-in to an unmapped service line offset.³⁷¹
- There were no reported injuries.³⁷²

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Recordkeeping: <u>49 C.F.R. § 192.605(a)</u></p> <ul style="list-style-type: none"> • SED alleges that PG&E failed to follow Mapping Standard 410.21-1, in violation of section 192.605(a).³⁷³ 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(a)</u></p> <ul style="list-style-type: none"> • SED has not proven that PG&E failed to prepare or follow a specific recordkeeping standard or procedure, including Mapping Standard 410.21-1, when the record was created, as required by section 192.605(a).³⁷⁴ 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(a)</u></p> <ul style="list-style-type: none"> • SED proposes a total penalty of \$6.22 million for PG&E's alleged violation of section 192.605(a).³⁷⁵ • SED's penalty calculation is based on a continuing violation from 8/1/1983 to 9/24/2014: <ul style="list-style-type: none"> ○ 8/1/1983 to 12/31/1993: \$2,000 monthly.³⁷⁶ ○ 1/1/1994 to 12/31/2011: \$20,000 monthly.³⁷⁷ ○ 1/1/2012 to 9/24/2014: \$50,000 monthly.³⁷⁸ 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(a)</u></p> <ul style="list-style-type: none"> • No penalty is warranted because SED has not met its burden of proof.³⁷⁹

FRESNO, WEST ASHLAN AVENUE (SEPT. 24, 2014)

- This incident involved a dig-in to an unmapped service line offset.³⁷¹
- There were no reported injuries.³⁷²

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Recordkeeping:</p> <p><u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • SED alleges that PG&E provided inaccurate maps and records to field personnel, in violation of sections 192.605(b)(3) and 451.³⁸⁰ 	<p>Recordkeeping:</p> <p><u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • SED has not shown that PG&E's O&M Manual lacked procedures for making maps/records available, as required by section 192.605(b)(3). PG&E maintained such procedures.³⁸¹ • Section 192.605(b)(3) does not speak to records accuracy or require that records be perfect.³⁸² • SED did not allege a section 451 violation in its direct testimony, and is therefore barred from raising the new claim.³⁸³ To the extent SED alleges section 192.605(b)(3) is the basis for the alleged section 451 violation, the same arguments apply. 	<p>Recordkeeping:</p> <p><u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451</u></p> <ul style="list-style-type: none"> • SED proposes a penalty of \$50,000 for PG&E's alleged one-time violation of sections 192.605(b)(3) and 451.³⁸⁴ 	<p>Recordkeeping:</p> <p><u>49 C.F.R. § 192.605(b)(3) and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • No penalty is warranted because SED has not met its burden of proof.³⁸⁵ • In addition, due process requires PG&E to have received notice of the section 451 violation when SED filed its direct testimony, and to the extent the violation overlaps with the section 192.605(b)(3) violation, SED has not met its burden of proof.³⁸⁶

FRESNO, WEST ASHLAN AVENUE (SEPT. 24, 2014)

- This incident involved a dig-in to an unmapped service line offset.³⁷¹
- There were no reported injuries.³⁷²

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Non-Recordkeeping:</p> <p><u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)*</u></p> <ul style="list-style-type: none"> • SED alleges that PG&E failed to provide accurate temporary marking for its subsurface facilities, in violation of sections 192.614(c)(5) and 4216.3(a)(1).³⁸⁷ 	<p>Non-Recordkeeping:</p> <p><u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)*</u></p> <ul style="list-style-type: none"> • SED did not allege a section 192.614(c)(5) violation in its direct testimony, and is therefore barred from raising the new claim.³⁸⁸ Moreover, this section addresses requirements for written damage prevention programs and does not relate to recordkeeping.³⁸⁹ Finally, PG&E's Damage Prevention Handbook, first published in Oct. 2013 and updated in March 2014, complies with the regulation.³⁹⁰ • SED did not allege a section 4216.3(a)(1) violation in its direct testimony, and is therefore barred from raising the new claim.³⁹¹ Moreover, section 4216.3(a)(1), addressing "Locating and Field Marking of Subsurface Installations," does not relate to recordkeeping.³⁹² 	<p>Non-Recordkeeping:</p> <p><u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)*</u></p> <ul style="list-style-type: none"> • SED proposes a penalty of \$50,000 for PG&E's alleged one-time violation of sections 192.614(c)(5) and 4216.3(a)(1).³⁹³ 	<p>Non-Recordkeeping:</p> <p><u>49 C.F.R. § 192.614(c)(5) and Cal. Gov't Code § 4216.3(a)(1)*</u></p> <ul style="list-style-type: none"> • No penalty is warranted because the violations are out of scope.³⁹⁴ • In addition, due process requires PG&E to have received notice of the violations when SED filed its direct testimony.³⁹⁵ • Moreover, PG&E's Damage Prevention Handbook complies with section 192.614(c)(5).³⁹⁶

Alleged Violations Not Related to Specific Incidents

SED INSPECTION OF SAN FRANCISCO DIVISION – LEAK 1

- In August of 2015, SED conducted an inspection in the San Francisco Division to determine whether pipe repairs completed in 2013 were accurately represented on the current maps.³⁹⁷
- SED discovered that a plastic insert that had been installed in December 2013 was not reflected on the current GD-GIS map.³⁹⁸

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u></p> <ul style="list-style-type: none"> SED alleges that PG&E failed to follow its written procedures to maintain and update its operating maps and records, in violation of section 192.605(a).³⁹⁹ 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u></p> <ul style="list-style-type: none"> SED did not allege a section 192.605(a) violation in its direct testimony, and is therefore barred from raising the new claim.⁴⁰⁰ Moreover, SED has not proven that PG&E failed to prepare or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.605(a), because SED does not cite any recordkeeping procedure.⁴⁰¹ 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u></p> <ul style="list-style-type: none"> SED proposes a total penalty of \$1 million for PG&E’s alleged violation of section 192.605(a).⁴⁰² SED’s penalty calculation is based on a continuing violation from 12/19/2013 to 8/7/2015: \$50,000 monthly.⁴⁰³ 	<p>Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u></p> <ul style="list-style-type: none"> No penalty is warranted because due process requires PG&E to have received notice of the violation when SED filed its direct testimony.⁴⁰⁴ In addition, SED has not met its burden of proof.⁴⁰⁵

SED INSPECTION OF SAN FRANCISCO DIVISION – LEAK 2

- In August of 2015, SED conducted an inspection in the San Francisco Division to determine whether pipe repairs completed in 2013 were accurately represented on the current maps.⁴⁰⁶
- SED discovered that a plastic insert that had been installed in May 2013 was not reflected on the current GD-GIS map or plat map.⁴⁰⁷

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u> <ul style="list-style-type: none"> • SED alleges that PG&E failed to follow its written procedures to maintain and update its operating maps and records, in violation of section 192.605(a).⁴⁰⁸ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u> <ul style="list-style-type: none"> • SED did not allege a section 192.605(a) violation in its direct testimony, and is therefore barred from raising the new claim.⁴⁰⁹ • Moreover, SED has not proven that PG&E failed to prepare or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.605(a), because SED does not cite any recordkeeping procedure.⁴¹⁰ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u> <ul style="list-style-type: none"> • SED proposes a total penalty of \$1.3 million for PG&E’s alleged violation of section 192.605(a).⁴¹¹ • SED’s penalty calculation is based on a continuing violation from 5/29/2013 to 8/7/2015: \$50,000 monthly.⁴¹² 	Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u> <ul style="list-style-type: none"> • No penalty is warranted because due process requires PG&E to have received notice of the violation when SED filed its direct testimony.⁴¹³ • In addition, SED has not met its burden of proof.⁴¹⁴

SED INSPECTION OF SAN JOSE DIVISION – LEAK 1

- In July of 2015, SED conducted an inspection in the San Jose Division to determine whether pipe repairs completed in 2013 and 2014 were accurately represented on the current maps.⁴¹⁵
- SED discovered that a plastic insert that had been installed in October 2013 was not reflected on the current GD-GIS map.⁴¹⁶ PG&E conducted a further investigation and discovered that the job was in fact timely mapped, but to a nearby address.⁴¹⁷

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u> <ul style="list-style-type: none"> • SED alleges that PG&E failed to follow its written procedures to maintain and update its operating maps and records, in violation of section 192.605(a).⁴¹⁸ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u> <ul style="list-style-type: none"> • SED did not allege a section 192.605(a) violation in its direct testimony, and is therefore barred from raising the new claim.⁴¹⁹ • Moreover, there is no violation because the plat map was properly updated.⁴²⁰ • In addition, SED has not proven that PG&E failed to prepare or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.605(a), because SED does not cite any recordkeeping procedure.⁴²¹ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u> <ul style="list-style-type: none"> • SED proposes a total penalty of \$1.05 million for PG&E's alleged violation of section 192.605(a).⁴²² • SED's penalty calculation is based on a continuing violation from 10/4/2013 to 7/17/2015: \$50,000 monthly.⁴²³ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u> <ul style="list-style-type: none"> • No penalty is warranted because due process requires PG&E to have received notice of the violation when SED filed its direct testimony.⁴²⁴ • In addition, SED has not met its burden of proof.⁴²⁵

SED INSPECTION OF SAN JOSE DIVISION – LEAK 2

- In July of 2015, SED conducted an inspection in the San Jose Division to determine whether pipe repairs completed in 2013 and 2014 were accurately represented on the current maps.⁴²⁶
- SED discovered that a plastic insert that had been installed in July 2014 was not reflected on the current GD-GIS map.⁴²⁷ PG&E conducted a further investigation and discovered that the job was in fact timely mapped, but to a nearby address.⁴²⁸

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u> <ul style="list-style-type: none"> • SED alleges that PG&E failed to follow its written procedures to maintain and update its operating maps and records, in violation of section 192.605(a).⁴²⁹ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u> <ul style="list-style-type: none"> • SED did not allege a section 192.605(a) violation in its direct testimony, and is therefore barred from raising the new claim.⁴³⁰ • Moreover, there is no violation because the plat map was properly updated.⁴³¹ • In addition, SED has not proven that PG&E failed to prepare or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.605(a), because SED does not cite any recordkeeping procedure.⁴³² 	Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u> <ul style="list-style-type: none"> • SED proposes a total penalty of \$600,000 for PG&E's alleged violation of section 192.605(a).⁴³³ • SED's penalty calculation is based on a continuing violation from 7/15/2014 to 7/17/2015: \$50,000 monthly.⁴³⁴ 	Recordkeeping: <u>49 C.F.R. § 192.605(a)*</u> <ul style="list-style-type: none"> • No penalty is warranted because the plat map was properly updated.⁴³⁵ • In addition, no penalty is warranted because due process requires PG&E to have received notice of the violation when SED filed its direct testimony. In addition, SED has not met its burden of proof.⁴³⁶

MAOP-ASSOCIATED VIOLATIONS

- This group of alleged violations arises from PG&E's method of determining the MAOP of approximately 243 gas distribution systems for which PG&E did not have the relevant records reflecting the operating pressure from the 1965 to 1970 time frame.⁴³⁷
- To address this issue, in 1978 PG&E adopted a policy that provided two alternatives for determining the MAOP of those systems under the grandfather clause of section 192.619(c).⁴³⁸

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Non-Recordkeeping: <u>49 C.F.R. §§ 192.603(b), 192.605(a), and 192.619(c)</u></p> <ul style="list-style-type: none"> • SED alleges PG&E failed to maintain records to establish the MAOP for approximately 243 distribution systems, in violation of sections 192.603(b), 192.605(a), and 192.619(c).⁴³⁹ 	<p>Non-Recordkeeping: <u>49 C.F.R. §§ 192.603(b), 192.605(a), and 192.619(c)</u></p> <ul style="list-style-type: none"> • SED has not proven that PG&E failed to keep records necessary to administer its procedures under section 192.605, as required by section 192.603(b), because SED does not cite to any specific procedure.⁴⁴⁰ • SED has not proven that PG&E failed to prepare or follow a specific recordkeeping standard or procedure when the record was created, as required by section 192.605(a), because SED does not cite any recordkeeping procedure.⁴⁴¹ • SED has not proven that PG&E failed to comply with section 192.619(c) because SED incorrectly assumes that this provision requires written pressure records from 1965 to 1970.⁴⁴² 	<p>Non-Recordkeeping: <u>49 C.F.R. §§ 192.603(b), 192.605(a), and 192.619(c)</u></p> <ul style="list-style-type: none"> • SED proposes a total penalty of \$7.12 million for PG&E's alleged violation of sections 192.603(b), 192.605(a), and 192.619(c).⁴⁴³ • SED's penalty calculation is based on a continuing violation from 1/12/1971 to 9/30/2015: <ul style="list-style-type: none"> ○ 1/12/1971 to 12/31/1993: \$2,000 monthly.⁴⁴⁴ ○ 1/1/1994 to 12/31/2011: \$20,000 monthly.⁴⁴⁵ ○ 1/1/2012 to 9/30/2015: \$50,000 monthly.⁴⁴⁶ 	<p>Non-Recordkeeping: <u>49 C.F.R. §§ 192.603(b), 192.605(a), and 192.619(c)</u></p> <ul style="list-style-type: none"> • No penalty is warranted because SED has not met its burden of proof.⁴⁴⁷ • Although PG&E disagrees that SED has proven the alleged violations, PG&E acknowledges that it did not meet the expectations it sets for itself. Therefore, if the Commission finds that violations have occurred, PG&E agrees that the maximum penalty is \$7.12 million.⁴⁴⁸

SYSTEMWIDE FAILURE

- These asserted violations arise out of the incidents identified in the PWA Report resulting from PG&E's alleged failure to maintain accurate maps, the two SED leak repair inspections, the absence of records to support establishment of the MAOP for approximately 243 systems, and the missing leak repair records in the De Anza Division.⁴⁴⁹

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Recordkeeping: <u>49 C.F.R. §§ 192.603(b), 192.605(a), 192.13(c), and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> SED alleges that PG&E failed to have controls in place to ensure the maintenance and updating of its operating maps and data, in violation of sections 192.603(b), 192.605(a), 192.13(c), and 451.⁴⁵⁰ 	<p>Recordkeeping: <u>49 C.F.R. §§ 192.603(b), 192.605(a), 192.13(c), and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> SED did not allege section 192.603(b), 192.605(a), 192.13(c), or 451 violations with regard to "systemwide" recordkeeping failure in its direct testimony, and is therefore barred from raising the new claims.⁴⁵¹ The alleged violations arising out of the failure to maintain accurate operating maps are duplicative of the Category 1 and Category 5 violations regarding accuracy of records.⁴⁵² The alleged violations arising out of the MAOP claims are duplicative of the Category 7 violations premised on the same facts.⁴⁵³ The alleged violations arising out of the missing De Anza leak repair records are duplicative of the Category 4 violations premised on the same facts.⁴⁵⁴ 	<p>Recordkeeping: <u>49 C.F.R. §§ 192.603(b), 192.605(a), 192.13(c), and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> SED proposes a total penalty of \$7.122 million for PG&E's alleged violation of sections 192.603(b), 192.605(a), 192.13(c), and 451.⁴⁵⁵ SED's penalty calculation is based on a continuing violation from 1/12/1971 to 9/30/2015: <ul style="list-style-type: none"> 1/12/1971 to 12/31/1993: \$2,000 monthly.⁴⁵⁶ 1/1/1994 to 12/31/2011: \$20,000 monthly.⁴⁵⁷ 1/1/2012 to 9/30/2015: \$50,000 monthly.⁴⁵⁸ 	<p>Recordkeeping: <u>49 C.F.R. §§ 192.603(b), 192.605(a), 192.13(c), and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> No penalty is warranted because SED has not met its burden of proof.⁴⁵⁹ In addition, due process requires PG&E to have received notice of the violation when SED filed its direct testimony.⁴⁶⁰ Moreover, the alleged violations are duplicative of other alleged violations.⁴⁶¹

MISSING DE ANZA DIVISION LEAK RECORDS

- These alleged violations arise out of PG&E's loss of approximately twelve years of leak repair records in the De Anza Division.⁴⁶²

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Recordkeeping: <u>49 C.F.R. §§ 192.603(b), 192.605(a), 192.13(c), and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • SED alleges that PG&E failed to have controls in place to ensure the maintenance and updating of its operating maps and data, in violation of sections 192.603(b), 192.605(a), 192.13(c), and 451.⁴⁶³ 	<p>Recordkeeping: <u>49 C.F.R. §§ 192.603(b), 192.605(a), 192.13(c), and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • There is no evidence of a causal connection between these leak repair records and the Mountain View incident.⁴⁶⁴ • The information in these paper records is largely contained in PG&E's electronic databases.⁴⁶⁵ • SED did not allege section 192.603(b), 192.605(a), 192.13(c), or 451 violations with regard to the missing De Anza records in its direct testimony, and is therefore barred from raising the new claims.⁴⁶⁶ 	<p>Recordkeeping: <u>49 C.F.R. §§ 192.603(b), 192.605(a), 192.13(c), and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • SED proposes a total penalty of \$9.496 million for PG&E's alleged violation of sections 192.603(b), 192.605(a), 192.13(c), and 451.⁴⁶⁷ • SED's penalty calculation is based on a continuing violation from 1/12/1979 to 12/31/1991: \$2,000 daily.⁴⁶⁸ 	<p>Recordkeeping: <u>49 C.F.R. §§ 192.603(b), 192.605(a), 192.13(c), and Cal. Pub. Util. Code § 451*</u></p> <ul style="list-style-type: none"> • No penalty is warranted because due process requires PG&E to have received notice of the violations when SED filed its direct testimony.⁴⁶⁹ • In addition, SED has not met its burden of proof.⁴⁷⁰

UNKNOWN PLASTIC INSERTS

- These violations are based on PG&E's purported failure to implement new procedures after the Mountain View incident to respond to the risks posed by unmapped plastic inserts in its distribution system.⁴⁷¹

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Recordkeeping: <u>49 C.F.R. §§ 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, and Cal. Pub. Util. §§ 451, 961(d)(1)*</u></p> <ul style="list-style-type: none"> SED alleges that PG&E failed to learn from experience in order to prevent future incidents, specifically by not addressing the issue of unmapped plastic inserts, in violation of sections 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, 451, and 961(d)(1).⁴⁷² 	<p>Recordkeeping: <u>49 C.F.R. §§ 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, and Cal. Pub. Util. §§ 451, 961(d)(1)*</u></p> <ul style="list-style-type: none"> SED did not allege section 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, 451, or 961(d)(1) violations with regard to a general failure to address the issue of plastic inserts in its direct testimony, and is therefore barred from raising the new claims.⁴⁷³ Although the alleged violations are out of scope, PG&E's response to the Mountain View incident is properly within scope. PG&E concedes that, with the benefit of hindsight, it should have done more to address the dangers of unmapped plastic inserts after the Mountain View incident.⁴⁷⁴ 	<p>Recordkeeping: <u>49 C.F.R. §§ 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, and Cal. Pub. Util. §§ 451, 961(d)(1)*</u></p> <ul style="list-style-type: none"> SED proposes a total penalty of \$10.8 million for PG&E's alleged violation of sections 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, 451, and 961(d)(1).⁴⁷⁵ SED's penalty calculation is based on a continuing violation from 7/30/2013 to 3/3/2014: \$50,000 daily.⁴⁷⁶ 	<p>Recordkeeping: <u>49 C.F.R. §§ 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, and Cal. Pub. Util. §§ 451, 961(d)(1)*</u></p> <ul style="list-style-type: none"> No penalty is warranted because due process requires PG&E to have received notice of the violations when SED filed its direct testimony.⁴⁷⁷ In addition, no penalty is warranted because SED has not met its burden of proof.⁴⁷⁸ Although PG&E disagrees that SED has proven the alleged violations, PG&E acknowledges that it did not meet the expectations it sets for itself. Therefore, if the Commission finds that violations have occurred, PG&E agrees that the maximum penalty is \$10.8 million.⁴⁷⁹

LACK OF TIMELY INVESTIGATION INTO MISSING LEAK REPAIR RECORDS

- These violations arise from PG&E's alleged failure to timely investigate the missing leak repair records from the De Anza Division based on one CAP item.⁴⁸⁰
- There is a dearth of factual background on this set of allegations because no record was developed on the issue.⁴⁸¹

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Recordkeeping: <u>49 C.F.R. §§ 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, and Cal. Pub. Util. §§ 451, 961(d)(1)*</u></p> <ul style="list-style-type: none"> • SED alleges that PG&E failed to learn from experience in order to prevent future incidents, specifically by not timely investigating the missing De Anza records, in violation of sections 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, 451, and 961(d)(1).⁴⁸² 	<p>Recordkeeping: <u>49 C.F.R. §§ 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, and Cal. Pub. Util. §§ 451, 961(d)(1)*</u></p> <ul style="list-style-type: none"> • SED did not allege section 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, 451, or 961(d)(1) violations with regard to the missing De Anza records in its direct testimony, and is therefore barred from raising the new claims.⁴⁸³ • Owing to lack of notice of the claims, the record is not sufficiently developed to infer that PG&E did not adequately investigate the missing leak repair records.⁴⁸⁴ 	<p>Recordkeeping: <u>49 C.F.R. §§ 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, and Cal. Pub. Util. §§ 451, 961(d)(1)*</u></p> <ul style="list-style-type: none"> • SED proposes a total penalty of \$1.29 million for PG&E's alleged violation of sections 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, 451, and 961(d)(1).⁴⁸⁵ • SED's penalty calculation is based on a continuing violation from 7/30/2010 to 7/30/2013: <ul style="list-style-type: none"> ○ 7/30/2010 to 12/31/2011: \$20,000 monthly.⁴⁸⁶ ○ 1/1/2012 to 7/30/2013: \$50,000 monthly.⁴⁸⁷ 	<p>Recordkeeping: <u>49 C.F.R. §§ 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, and Cal. Pub. Util. §§ 451, 961(d)(1)*</u></p> <ul style="list-style-type: none"> • No penalty is warranted because due process requires PG&E to have received notice of the violations when SED filed its direct testimony.⁴⁸⁸ • SED has not met its burden of proof.⁴⁸⁹

FAILURE TO ACCOUNT FOR UNKNOWN STUBS

- These violations arise from PG&E's supposed failure to map stubs throughout its distribution system and are based on a large quantity of *mapped* stubs that SED identifies, three incidents in which an unmapped stub was involved, and a 2005 PG&E audit finding that a stub had been deleted from a map without first excavating to confirm it had been removed.⁴⁹⁰

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Recordkeeping:</p> <p><u>49 C.F.R. §§ 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, and Cal. Pub. Util. §§ 451, 961(d)(1)*</u></p> <ul style="list-style-type: none"> SED alleges that PG&E failed to learn from experience in order to prevent future incidents, specifically by failing to account for inaccurately mapped or unmapped stubs, in violation of sections 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, 451, and 961(d)(1).⁴⁹¹ 	<p>Recordkeeping:</p> <p><u>49 C.F.R. §§ 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, and Cal. Pub. Util. §§ 451, 961(d)(1)*</u></p> <ul style="list-style-type: none"> SED did not allege section 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, 451, or 961(d)(1) violations with regard to a general failure to account for unknown stubs in its direct testimony, and is therefore barred from raising the new claims.⁴⁹² The alleged violations arising out of "unknown stubs" are duplicative of the alleged violations arising out of Morgan Hill and San Jose II, which are also based on unknown stubs.⁴⁹³ SED has not proven such sweeping and generalized allegations.⁴⁹⁴ 	<p>Recordkeeping:</p> <p><u>49 C.F.R. §§ 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, and Cal. Pub. Util. §§ 451, 961(d)(1)*</u></p> <ul style="list-style-type: none"> SED proposes a total penalty of \$6.8 million for PG&E's alleged violation of sections 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, 451, and 961(d)(1).⁴⁹⁵ SED's penalty calculation is based on a continuing violation from 7/30/2010 to 7/30/2013: <ul style="list-style-type: none"> 7/30/2010 to 12/31/2011: \$20,000 monthly.⁴⁹⁶ 1/1/2012 to 7/30/2013: \$50,000 monthly.⁴⁹⁷ 	<p>Recordkeeping:</p> <p><u>49 C.F.R. §§ 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, and Cal. Pub. Util. §§ 451, 961(d)(1)*</u></p> <ul style="list-style-type: none"> No penalty is warranted because due process requires PG&E to have received notice of the violation when SED filed its direct testimony.⁴⁹⁸ In addition, the alleged violations are duplicative of other alleged violations.⁴⁹⁹ Moreover, SED has not met its burden of proof.⁵⁰⁰

FAILURE TO ACCOUNT FOR UNMAPPED FACILITIES

- Support for these alleged violations comes from the incidents detailed in the PWA Report, as well as an incident described in the testimony of Police Chief Calhoun in which an unmapped service line caused a PG&E crew to accidentally cut off the gas service to a Carmel resident's house temporarily.⁵⁰¹

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Recordkeeping:</p> <p><u>49 C.F.R. §§ 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, and Cal. Pub. Util. §§ 451, 961(d)(1)*</u></p> <ul style="list-style-type: none"> SED alleges that PG&E failed to learn from experience in order to prevent future incidents, specifically by failing to account for unmapped facilities, in violation of sections 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, 451, and 961(d)(1).⁵⁰² 	<p>Recordkeeping:</p> <p><u>49 C.F.R. §§ 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, and Cal. Pub. Util. §§ 451, 961(d)(1)*</u></p> <ul style="list-style-type: none"> SED did not allege section 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, 451, or 961(d)(1) violations with regard to a general failure to account for unmapped facilities in its direct testimony, and is therefore barred from raising the new claims.⁵⁰³ The alleged violations arising out of “unmapped facilities” are duplicative of the alleged violations arising out of specific incidents, which are also based on mismapped facilities.⁵⁰⁴ SED has not proven such sweeping and generalized allegations.⁵⁰⁵ PG&E admits that the service for the Carmel residence was not mapped.⁵⁰⁶ 	<p>Recordkeeping:</p> <p><u>49 C.F.R. §§ 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, and Cal. Pub. Util. §§ 451, 961(d)(1)*</u></p> <ul style="list-style-type: none"> SED proposes a total penalty of \$2.51 million for PG&E's alleged violation of sections 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, 451, and 961(d)(1).⁵⁰⁷ SED's penalty calculation is based on a continuing violation from 8/12/2009 to 4/6/2015: <ul style="list-style-type: none"> 8/12/2009 to 12/31/2011: \$20,000 monthly.⁵⁰⁸ 1/1/2012 to 4/6/2015: \$50,000 monthly.⁵⁰⁹ 	<p>Recordkeeping:</p> <p><u>49 C.F.R. §§ 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, and Cal. Pub. Util. §§ 451, 961(d)(1)*</u></p> <ul style="list-style-type: none"> No penalty is warranted because due process requires PG&E to have received notice of the violation when SED filed its direct testimony.⁵¹⁰ In addition, the alleged violations are duplicative of other alleged violations, with the exception of the unmapped service in Carmel for which the maximum fine is \$50,000.⁵¹¹ Moreover, SED has not met its burden of proof.⁵¹²

MISMAPPED FACILITIES

- The facts underlying these alleged violations are not clear but seem to be the inaccurate maps underlying some of the incidents at issue in this OII.⁵¹³

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Recordkeeping: <u>49 C.F.R. §§ 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, and Cal. Pub. Util. §§ 451, 961(d)(1)*</u></p> <ul style="list-style-type: none"> SED alleges that PG&E failed to learn from experience in order to prevent future incidents, specifically by inaccurately mapping facilities, in violation of sections 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, 451, and 961(d)(1).⁵¹⁴ 	<p>Recordkeeping: <u>49 C.F.R. §§ 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, and Cal. Pub. Util. §§ 451, 961(d)(1)*</u></p> <ul style="list-style-type: none"> SED did not allege section 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, 451, or 961(d)(1) violations with regard to a general failure to account for unmapped facilities in its direct testimony, and is therefore barred from raising the new claims.⁵¹⁵ The alleged violations arising out of “mismapped facilities” are duplicative of the alleged violations arising out of specific incidents, which are also based on mismapped facilities.⁵¹⁶ SED has not proven such sweeping and generalized allegations.⁵¹⁷ 	<p>Recordkeeping: <u>49 C.F.R. §§ 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, and Cal. Pub. Util. §§ 451, 961(d)(1)*</u></p> <ul style="list-style-type: none"> SED proposes a total penalty of \$1.93 million for PG&E’s alleged violation of sections 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, 451, and 961(d)(1).⁵¹⁸ SED’s penalty calculation is based on a continuing violation from 10/21/2010 to 9/24/2014: <ul style="list-style-type: none"> 10/21/2010 to 12/31/2011: \$20,000 monthly.⁵¹⁹ 1/1/2012 to 9/24/2014: \$50,000 monthly.⁵²⁰ 	<p>Recordkeeping: <u>49 C.F.R. §§ 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, and Cal. Pub. Util. §§ 451, 961(d)(1)*</u></p> <ul style="list-style-type: none"> No penalty is warranted because due process requires PG&E to have received notice of the violation when SED filed its direct testimony.⁵²¹ In addition, the alleged violations are duplicative of other alleged violations.⁵²² Moreover, SED has not met its burden of proof.⁵²³

FAILURE TO ADDRESS DIFFICULT TO LOCATE FACILITIES

- These allegations arise from the occasional mismarking or not marking of gas lines in the course of PG&E's work.⁵²⁴

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
<p>Non-Recordkeeping:</p> <p><u>49 C.F.R. §§ 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, and Cal. Pub. Util. §§ 451, 961(d)(1)*</u></p> <ul style="list-style-type: none"> SED alleges that PG&E failed to learn from experience in order to prevent future incidents, specifically by failing to address difficult to locate facilities, in violation of sections 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, 451, and 961(d)(1).⁵²⁵ 	<p>Non-Recordkeeping:</p> <p><u>49 C.F.R. §§ 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, and Cal. Pub. Util. §§ 451, 961(d)(1)*</u></p> <ul style="list-style-type: none"> SED did not allege section 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, 451, or 961(d)(1) violations with regard to a general failure to address difficult to locate facilities in its direct testimony, and is therefore barred from raising the new claims.⁵²⁶ The alleged violations are related to locating and marking practices, which are operational issues and not recordkeeping-related.⁵²⁷ SED's claim that PG&E has failed to address "difficult to locate facilities" is contradicted by the testimony of John Higgins.⁵²⁸ 	<p>Non-Recordkeeping:</p> <p><u>49 C.F.R. §§ 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, and Cal. Pub. Util. §§ 451, 961(d)(1)*</u></p> <ul style="list-style-type: none"> SED proposes a total penalty of \$1.65 million for PG&E's alleged violation of sections 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, 451, and 961(d)(1).⁵²⁹ SED's penalty calculation is based on a continuing violation from 9/28/2010 to 4/8/2014: <ul style="list-style-type: none"> 9/28/2010 to 12/31/2011: \$20,000 monthly.⁵³⁰ 1/1/2012 to 4/8/2014: \$50,000 monthly.⁵³¹ 	<p>Non-Recordkeeping:</p> <p><u>49 C.F.R. §§ 192.605(b)(4), 192.605(b)(8), 192.613, 192.617, and Cal. Pub. Util. §§ 451, 961(d)(1)*</u></p> <ul style="list-style-type: none"> No penalty is warranted because due process requires PG&E to have received notice of the violation when SED filed its direct testimony.⁵³² In addition, the alleged violations are not recordkeeping-related.⁵³³ Moreover, SED has not met its burden of proof.⁵³⁴

FAILURE TO DISCLOSE THE MISSING DE ANZA DIVISION RECORDS IN RESPONSE TO THE OII

- This violation arises from PG&E’s alleged failure to disclose information regarding the missing De Anza Division leak repair records to SED.⁵³⁵
- PG&E timely disclosed to SED relevant information relating to this issue.⁵³⁶

SED Alleged Violations	PG&E Position on Alleged Violations	SED Proposed Penalty	PG&E Position on Proposed Penalty
Recordkeeping: <u>Cal. Pub. Util. Code § 451*</u> <ul style="list-style-type: none"> • SED alleges that PG&E failed to disclose known facts about the missing De Anza records, in violation of section 451.⁵³⁷ 	Recordkeeping: <u>Cal. Pub. Util. Code § 451*</u> <ul style="list-style-type: none"> • SED did not allege a section 451 violation—or any violation for that matter—in connection with the missing De Anza leak repair records in its direct testimony, and is therefore barred from raising the new claims.⁵³⁸ • PG&E, in fact, timely disclosed information relevant to the De Anza leak repair records to SED.⁵³⁹ 	Recordkeeping: <u>Cal. Pub. Util. Code § 451*</u> <ul style="list-style-type: none"> • SED proposes a total penalty of \$8.6 million for PG&E’s alleged violation of section 451.⁵⁴⁰ • SED’s penalty calculation is based on a continuing violation from 12/22/2014 to 6/12/2015: \$50,000 daily.⁵⁴¹ 	Recordkeeping: <u>Cal. Pub. Util. Code § 451*</u> <ul style="list-style-type: none"> • No penalty is warranted because due process requires PG&E to have received notice of the violation when SED filed its direct testimony.⁵⁴² • In addition, no penalty is warranted because PG&E’s timely disclosure of the relevant records during discovery does not amount to a violation of section 451.⁵⁴³

¹ Ex. 6, Attachment W060 at W060.001-.002 (30-Day Letter from Glen Carter, PG&E to Raffy Stepanian, Cal. Pub. Utils. Comm’n (Oct. 28, 2010)).

² Ex. 4 at 3-32:9 to 3-33:5 (PG&E Reply Testimony, Higgins).

³ *Id.*

⁴ Ex. 1 at 20 tbl.2 (PWA Report).

⁵ PG&E does not agree that the regulations addressed in the “Recordkeeping” categories contain any requirements as to the form, content, or accuracy of gas distribution records.

⁶ SED OB at 59-60, 88; Ex. 2 at 24 tbl.1 (PWA Rebuttal).

⁷ Ex. 1 at 20 tbl.2 (PWA Report).

⁸ Ex. 4 at 3-32:25 to 3-33:5 (PG&E Reply Testimony, Higgins).

⁹ *See* PG&E OB at 43-44 (discussing requirements of section 192.605(a)); Ex. 2 at 24 tbl.1 (PWA Rebuttal) (alleging that “the L&M crew did not follow proper procedures for determining location of pipelines as per Work Procedure 4412-03 page 4”); Ex. 21 at W061.001 (Utility Work Procedure WP4412-03) (providing “step-by-step instructions for processing Underground Service Alert (USA) tickets and for marking and locating Pacific Gas and Electric Company (Company) underground gas, electric, and fiberoptic cable facilities”).

¹⁰ SED OB at 88.

¹¹ PG&E OB at 43-44; *see supra* Appendix A at pp. A-13 to A-14 (discussing alleged Category 8 violations).

¹² Appendix C of PG&E’s Opening Brief lists several of the non-recordkeeping regulations and laws cited by SED and discussed in this Appendix. *See* PG&E OB at App. C.

¹³ SED OB at 59-60, 88; Ex. 1 at 44 tbl.4 (PWA Report); Ex. 2 at 24 tbl.1 (PWA Rebuttal).

¹⁴ *See* PG&E OB at C-1 to C-2.

¹⁵ *Id.*

¹⁶ *Id.* at C-3 to C-4.

¹⁷ SED OB at 88.

¹⁸ PG&E OB at 41-42, C-1 to C-2 (discussing 49 C.F.R. § 192.614), C-3 to C-4 (discussing Cal. Gov’t Code § 4216.3); *see supra* Appendix A at p. A-12 (discussing alleged Category 6 violations).

¹⁹ PG&E OB at C-1 to C-2.

²⁰ Ex. 10 at 3-34:2-20 (PG&E Errata to Reply Testimony, Higgins).

²¹ Ex. 1 at 19 tbl.2 (PWA Report).

²² *Id.*

²³ SED OB at 56-57, 84-85; Ex. 2 at 22 tbl.1 (PWA Rebuttal).

²⁴ Ex. 10 at 3-34:2-4 (PG&E Errata to Reply Testimony, Higgins).

²⁵ Ex. 27 at 1-2 (PG&E’s Response to SED Data Request No. 23) (describing PG&E’s procedural requirements for accessing asset records in support of operational and maintenance activities).

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- ²⁶ See PG&E OB at 45-47 (discussing requirements of section 192.605(b)(3)).
- ²⁷ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).
- ²⁸ SED OB at 84-85.
- ²⁹ *Id.* at 45-47; see *supra* Appendix A at pp. A-10 to A-11 (discussing alleged Category 5 violations).
- ³⁰ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief), Appendix A at pp. A-10 to A-11 (stating that the section 451 violations should be rejected).
- ³¹ SED OB at 56-57, 86-87; Ex. 1 at 44 tbl.4 (PWA Report).
- ³² See PG&E OB at 43-44 (discussing requirements of section 192.605(a)).
- ³³ Ex. 10 at 3-34:2-4 (PG&E Errata to Reply Testimony, Higgins).
- ³⁴ *Id.*
- ³⁵ PG&E OB at C-3 to C-4.
- ³⁶ SED OB at 86-87.
- ³⁷ Note that in its Opening Brief, PG&E characterized section 192.605(a) as a recordkeeping regulation because when cited in reference to PG&E's alleged failure to follow a recordkeeping procedure, that is the correct descriptor. See 49 C.F.R. § 192.605(a). But, where, as here, SED cites section 192.605(a) in reference to PG&E's alleged failure to follow a non-recordkeeping procedure, the alleged violation is not properly within the scope of this OII and therefore in this Appendix, PG&E refers to such allegations as outside the scope. See PG&E OB at 41-42, C-3 to C-4 (discussing Cal. Gov't Code § 4216.3).
- ³⁸ PG&E OB at 43-44; see *supra* Appendix A at pp. A-13 to A-14 (discussing alleged Category 8 violations).
- ³⁹ Ex. 10 at 3-34:2-4 (PG&E Errata to Reply Testimony, Higgins).
- ⁴⁰ SED OB at 56-57, 86-87.
- ⁴¹ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).
- ⁴² See 49 C.F.R. § 192.805(h).
- ⁴³ See *supra* PG&E Reply Brief p. 49 (discussing alleged section 192.805(h) violation).
- ⁴⁴ SED OB at 86-87.
- ⁴⁵ PG&E OB at 41-42; see *supra* PG&E Reply Brief p. 49 (discussing alleged section 192.805(h) violation).
- ⁴⁶ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).
- ⁴⁷ Ex. 4 at 3-33:8-27 (PG&E Reply Testimony, Higgins).
- ⁴⁸ Ex. 1 at 19 tbl.2 (PWA Report).
- ⁴⁹ Ex. 6, Attachment W062 at W062.001 (30-Day Letter from Glen Carter, PG&E to Raffy Stepanian, Cal. Pub. Utils. Comm'n (April 15, 2010)).
- ⁵⁰ SED OB at 58-59, 87; Ex. 2 at 20-21 tbl.1 (PWA Rebuttal).

⁵¹ See PG&E OB at 43-44 (discussing requirements of section 192.605(a)); Ex. 2 at 20-21 tbl.1 (PWA Rebuttal) (alleging that PG&E's locate and mark personnel "did not contact mapping when the field locate and map did not agree or make sense," in violation of WP 4412-03); Ex. 21 at PGE_GDR_000008384 (Utility Work Procedure WP4412-03) (providing "step-by-step instructions for processing Underground Service Alert (USA) tickets and for marking and locating Pacific Gas and Electric Company (Company) underground gas, electric, and fiberoptic cable facilities.").

⁵² SED OB at 87.

⁵³ Note that in its Opening Brief, PG&E characterized section 192.605(a) as a recordkeeping regulation because when cited in reference to PG&E's alleged failure to follow a recordkeeping procedure, that is the correct descriptor. See 49 C.F.R. § 192.605(a). But, where, as here, SED cites section 192.605(a) in reference to PG&E's alleged failure to follow a non-recordkeeping procedure, the alleged violation is not properly within the scope of this OII and therefore in this Appendix, PG&E refers to such allegations as outside the scope. See PG&E OB at 41-42.

⁵⁴ PG&E OB at 43-44; see *supra* Appendix A at pp. A-13 to A-14 (discussing alleged Category 8 violations).

⁵⁵ SED OB at 58-59, 87; Ex. 1 at 44 tbl.4 (PWA Report).

⁵⁶ See PG&E OB at C-1 to C-2.

⁵⁷ *Id.*

⁵⁸ *Id.* at C-3 to C-4.

⁵⁹ SED OB at 87.

⁶⁰ PG&E OB at 41-42, C-1 to C-2 (discussing 49 C.F.R. § 192.614), C-3 to C-4 (discussing Cal. Gov't Code § 4216.3); see *supra* Appendix A at p. A-12. (discussing alleged Category 6 violations).

⁶¹ PG&E OB at C-1 to C-2.

⁶² Ex. 6, Attachment W040 at W040.005-.006 (PG&E's Final Statement of Facts).

⁶³ *Id.* at W040.006.

⁶⁴ *Id.*

⁶⁵ *Id.*

⁶⁶ *Id.* at W040.007.

⁶⁷ SED OB at 54-56, 76-77; Ex. 1 at 38:24-26 (PWA Report).

⁶⁸ See PG&E OB at 43-44 (discussing requirements of section 192.605(a)); Ex. 6, Attachment W043 at W043.001 (DCS Standard D-S0454, Gas Mains, Maintaining Continuity of Service During Construction) (describing procedure "to prevent accidental interruption in customer service in the course of construction, reconstruction or maintenance operations"); *id.*, Attachment W044 at W044.001 (A-93.1 Rev. 8, Plastic Gas Distribution System Construction and Maintenance) (providing "construction and maintenance information for a PE pipe and tubing gas distribution system"). In addition, neither Standards A-93.1 nor D-S0454 specified how long to monitor the gauge pressure before stopping the flow of gas or how often to monitor the gauge pressure after the pipe has been severed throughout the duration of the job. Therefore, PG&E did not necessarily violate any procedures by not assigning personnel to monitor the pressure constantly during the work activity. Ex. 4 at 3-25:3-17 (PG&E Reply Testimony, Higgins).

⁶⁹ SED OB at 76-77.

⁷⁰ *Id.*

⁷¹ Note that in its Opening Brief, PG&E characterized section 192.605(a) as a recordkeeping regulation because when cited in reference to PG&E's alleged failure to follow a recordkeeping procedure, that is the correct descriptor. *See* 49 C.F.R. § 192.605(a). But, where, as here, SED cites section 192.605(a) in reference to PG&E's alleged failure to follow a non-recordkeeping procedure, the alleged violation is not properly within the scope of this OII and therefore in this Appendix, PG&E refers to such allegations as outside the scope. *See* PG&E OB at 41-42.

⁷² PG&E OB at 43-44; *see supra* Appendix A at pp. A-2 to A-4 (discussing alleged Category 1 violations).

⁷³ SED OB at 54-56, 84-85; Ex. 1 at 38:16-17 (PWA Report).

⁷⁴ Ex. 27 at 1-2 (PG&E's Response to SED Data Request No. 23) (describing PG&E's procedural requirements for accessing asset records in support of operational and maintenance activities).

⁷⁵ *See* PG&E OB at 45-47 (discussing requirements of section 192.605(b)(3)).

⁷⁶ Ex. 4 at 3-26:10-16 (PG&E Reply Testimony, Higgins).

⁷⁷ *See supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

⁷⁸ SED OB at 84-85.

⁷⁹ *Id.*

⁸⁰ PG&E OB at 45-47; *see supra* Appendix A at pp. A-10 to A-11 (discussing alleged Category 5 violations).

⁸¹ *See supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief), Appendix A at pp. A-10 to A-11 (stating that the section 451 violations should be rejected).

⁸² Ex. 1 at 23 tbl.2 (PWA Report).

⁸³ *Id.*

⁸⁴ SED OB at 64-65; Ex. 1 at 46 tbl.4 (PWA Report).

⁸⁵ *Id.*

⁸⁶ SED OB at 64-65, 85-86; Ex. 1 at 46 tbl.4 (PWA Report).

⁸⁷ PG&E OB at C-1 to C-2.

⁸⁸ *Id.*

⁸⁹ *Id.* at C-3 to C-4.

⁹⁰ SED OB at 85-86.

⁹¹ PG&E OB at 41-42, C-1 to C-2 (discussing 49 C.F.R. § 192.614), C-3 to C-4 (discussing Cal. Gov't Code § 4216.3); *see supra* Appendix A at p. A-12 (discussing alleged Category 6 violations).

⁹² PG&E OB at C-1 to C-2.

⁹³ Ex. 4 at 3-30:9-16 (PG&E Reply Testimony, Higgins).

⁹⁴ PG&E OB at D-1; Ex. 4 at 3-30:9 to 3-31:12 (PG&E Reply Testimony, Higgins); Ex. 6, Attachment W057 at W057.001 (Cal. Pub. Utils. Comm'n, SED Incident Investigation Report G20141107-01 (Feb. 24, 2015)) (describing San Jose I Incident).

⁹⁵ Ex. 1 at 17 tbl.1 (PWA Report); Ex. 6, Attachment W057 at W057.001 (SED’s Third Responses to PG&E’s Data Requests Sets 2 and 3, Attachment Q9_G20141107-01 (Investigation Report)).

⁹⁶ SED OB at 65-67, 88-89; Ex. 1 at 43 tbl.4 (PWA Report).

⁹⁷ Ex. 1 at 17 tbl.2, 43 tbl.4 (PWA Report).

⁹⁸ See PG&E OB at 43-44 (discussing requirements of section 192.605(a)); Ex. 25 at W031.001 (TD-5811P-102) (describing “step-by-step instructions for evaluating the scope of a USA ticket request and determining the required response”).

⁹⁹ SED OB at 88-89.

¹⁰⁰ Note that in its Opening Brief, PG&E characterized section 192.605(a) as a recordkeeping regulation because when cited in reference to PG&E’s alleged failure to follow a recordkeeping procedure, that is the correct descriptor. See 49 C.F.R. § 192.605(a). But, where, as here, SED cites section 192.605(a) in reference to PG&E’s alleged failure to follow a non-recordkeeping procedure, the alleged violation is not properly within the scope of this OII and therefore in this Appendix, PG&E refers to such allegations as outside the scope. See PG&E OB at 41-42.

¹⁰¹ PG&E OB at 43-44; see *supra* Appendix A at pp. A-13 to A-14 (discussing alleged Category 8 violations).

¹⁰² SED OB at 65-67, 88-89.

¹⁰³ See PG&E OB at C-3 to C-4.

¹⁰⁴ *Id.* at 88-89.

¹⁰⁵ PG&E OB at 41-42, C-3 to C-4 (discussing Cal. Gov’t Code § 4216.3); see *supra* Appendix A at pp. A-13 to A-14 (discussing alleged Category 8 violations).

¹⁰⁶ Ex. 6, Attachment W040 at W040.008 (PG&E’s Final Statement of Facts).

¹⁰⁷ *Id.* at W040.009.

¹⁰⁸ *Id.* at W040.008.

¹⁰⁹ *Id.* at W040.009.

¹¹⁰ SED OB at 76-77; Ex. 1 at 39:32-34 (PWA Report).

¹¹¹ See PG&E OB at 43-44 (discussing requirements of section 192.605(a)).

¹¹² SED OB at 76-77.

¹¹³ *Id.*

¹¹⁴ *Id.*

¹¹⁵ *Id.*

¹¹⁶ PG&E OB at 43-44.

¹¹⁷ See *supra* PG&E Reply Brief p. 9.

¹¹⁸ SED OB at 84-85; Ex. 1 at 39:24-26 (PWA Report).

¹¹⁹ See PG&E OB at 49-50.

¹²⁰ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

¹²¹ SED OB at 84-85.

¹²² See *supra* PG&E Reply Brief p. 9.

¹²³ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief), Appendix A at pp. A-10 to A-11 (stating that the section 451 violations should be rejected).

¹²⁴ SED has withdrawn its allegation that the Mountain View incident specifically violated section 192.617. Compare SED OB at 80-83 with Ex. 1 at 39:32-34 (PWA Report).

¹²⁵ Ex. 4 at 3-35:1-5 (PG&E Reply Testimony, Higgins); Ex. 10 at 3-34:22-30 (PG&E Errata to Reply Testimony, Higgins).

¹²⁶ *Id.*

¹²⁷ *Id.*

¹²⁸ Ex. 1 at 22 tbl.2 (PWA Report).

¹²⁹ SED OB at 62-63; Ex. 2 at 25 tbl.1 (PWA Rebuttal).

¹³⁰ SED OB at 62-63, 85-86; Ex. 2 at 25 tbl.1 (PWA Rebuttal).

¹³¹ See PG&E OB at D-2.

¹³² See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

¹³³ PG&E OB at C-1 to C-2.

¹³⁴ *Id.*

¹³⁵ *Id.* at C-3 to C-4.

¹³⁶ SED OB at 85-86.

¹³⁷ PG&E OB at 41-42, C-1 to C-2 (discussing 49 C.F.R. § 192.614), C-3 to C-4 (discussing Cal. Gov't Code § 4216.3); see *supra* Appendix A at p. A-12 (discussing alleged Category 6 violations).

¹³⁸ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

¹³⁹ PG&E OB at C-1 to C-2.

¹⁴⁰ SED OB at 62-63, 88; Ex. 2 at 25 tbl.1 (PWA Rebuttal).

¹⁴¹ See PG&E OB at D-2.

¹⁴² Ex. 1 at 22 tbl.2 (PWA Report); Ex. 2 at 25 tbl.1 (PWA Rebuttal); see SED OB at 62-63, 88.

¹⁴³ See Cal. Pub. Util. Code § 451.

¹⁴⁴ SED OB at 88.

¹⁴⁵ PG&E OB at 41-42.

¹⁴⁶ Ex. 1 at 22 tbl.2 (PWA Report).

¹⁴⁷ *Id.*

¹⁴⁸ *Id.*

¹⁴⁹ SED OB at 76, 78.

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- ¹⁵⁰ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).
- ¹⁵¹ SED OB at 62, 76, 78.
- ¹⁵² *Id.* at 76, 78.
- ¹⁵³ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief); PG&E OB at 43-44.
- ¹⁵⁴ SED OB at 62, 84-85; Ex. 1 at 46 tbl.4 (PWA Report).
- ¹⁵⁵ Ex. 27 (PG&E's Response to SED Data Request No. 23) (describing PG&E's procedural requirements for accessing asset records in support of operational and maintenance activities).
- ¹⁵⁶ See PG&E OB at 45-47 (discussing requirements of section 192.605(b)(3)).
- ¹⁵⁷ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).
- ¹⁵⁸ SED OB at 84-85.
- ¹⁵⁹ PG&E OB at 45-47; see *supra* Appendix A at pp. A-10 to A-11 (discussing alleged Category 5 violations).
- ¹⁶⁰ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief), Appendix A at pp. A-10 to A-11 (stating that the section 451 violations should be rejected).
- ¹⁶¹ SED OB at 62, 85-86; Ex. 1 at 46 tbl.4 (PWA Report).
- ¹⁶² PG&E OB at C-1 to C-2.
- ¹⁶³ *Id.*
- ¹⁶⁴ *Id.* at C-3 to C-4.
- ¹⁶⁵ SED OB at 85-86.
- ¹⁶⁶ PG&E OB at 41-42, C-1 to C-2 (discussing 49 C.F.R. § 192.614), C-3 to C-4 (discussing Cal. Gov't Code § 4216.3); see *supra* Appendix A at p. A-12 (discussing alleged Category 6 violations).
- ¹⁶⁷ PG&E OB at C-1 to C-2.
- ¹⁶⁸ Ex. 1 at 18 tbl.2 (PWA Report).
- ¹⁶⁹ *Id.*
- ¹⁷⁰ SED OB at 76, 78.
- ¹⁷¹ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).
- ¹⁷² SED OB at 61, 76, 78.
- ¹⁷³ *Id.* at 76, 78.
- ¹⁷⁴ *Id.*

¹⁷⁵ PG&E OB at 43-44; *see supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

¹⁷⁶ SED has withdrawn its allegation that PG&E violated section 192.605(b)(3) in regard to the Kentfield incident. *Compare* SED OB at 61, 84-85, 88 *with* Ex. 1 at 43 tbl.4 (PWA Report).

¹⁷⁷ SED OB at 61, 88; Ex. 1 at 43 tbl.4 (PWA Report).

¹⁷⁸ *See* 49 C.F.R. § 192.321(e).

¹⁷⁹ SED OB at 88.

¹⁸⁰ PG&E OB at 41-42, C-3 (discussing 49 C.F.R. § 192.321(e)); *see supra* Appendix A at pp. A-13 to A-14 (discussing alleged Category 8 violations).

¹⁸¹ SED OB at 61, 85-86; Ex. 1 at 43 tbl.4 (PWA Report).

¹⁸² PG&E OB at C-1 to C-2.

¹⁸³ *Id.*

¹⁸⁴ *See supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

¹⁸⁵ PG&E OB at C-3 to C-4.

¹⁸⁶ SED OB at 85-86.

¹⁸⁷ PG&E OB at 41-42, C-1 to C-2 (discussing 49 C.F.R. § 192.614), C-3 to C-4 (discussing Cal. Gov't Code § 4216.3); *see supra* Appendix A at p. A-12 (discussing alleged Category 6 violations).

¹⁸⁸ *See supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

¹⁸⁹ PG&E OB at C-1 to C-2.

¹⁹⁰ Ex. 6, Attachment W040 at W040.007-.008 (PG&E's Final Statement of Facts).

¹⁹¹ *Id.* at W040.008.

¹⁹² *Id.*

¹⁹³ SED OB at 76-77.

¹⁹⁴ *See supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

¹⁹⁵ SED OB at 56, 76-77.

¹⁹⁶ *Id.* at 76-77.

¹⁹⁷ *Id.* Although SED did not identify a specific date in 1994 when it began to assess the violation, use of January 1, 1994 as the start date results in the \$5,020,000 figure that SED cites.

¹⁹⁸ *Id.*

¹⁹⁹ PG&E OB at 43-44; *see supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

²⁰⁰ SED OB at 56, 84-85; Ex. 1 at 39:13-15 (PWA Report).

²⁰¹ Ex. 27 (PG&E's Response to SED Data Request No. 23) (describing PG&E's procedural requirements for accessing asset records in support of operational and maintenance activities).

²⁰² See PG&E OB at 45-47 (discussing requirements of section 192.605(b)(3)).

²⁰³ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

²⁰⁴ SED OB at 84-85.

²⁰⁵ PG&E OB at 45-47.

²⁰⁶ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief), Appendix A at pp. A-10 to A-11 (stating that the section 451 violations should be rejected).

²⁰⁷ SED OB at 56, 85-86.

²⁰⁸ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

²⁰⁹ PG&E OB at C-1 to C-2.

²¹⁰ *Id.*

²¹¹ *Id.* at C-3 to C-4.

²¹² SED OB at 85-86.

²¹³ PG&E OB at 41-42, C-1 to C-2 (discussing 49 C.F.R. § 192.614), C-3 to C-4 (discussing Cal. Gov't Code § 4216.3); see *supra* Appendix A at p. A-12 (discussing alleged Category 6 violations).

²¹⁴ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

²¹⁵ PG&E OB at C-1 to C-2.

²¹⁶ Ex. 6, Attachment W040 at W040.010 (PG&E's Final Statement of Facts).

²¹⁷ *Id.* at W040.011.

²¹⁸ *Id.* at W040.010-.011.

²¹⁹ SED OB at 76-78; Ex. 1 at 40:14-18 (PWA Report).

²²⁰ See PG&E OB at 43-44 (discussing requirements of section 192.605(a)).

²²¹ SED OB at 76-78.

²²² *Id.*

²²³ *Id.*

²²⁴ PG&E OB at 43-44.

²²⁵ See *supra* PG&E Reply Brief p. 8.

²²⁶ SED OB at 84-85; Ex. 1 at 40:18-20 (PWA Report).

²²⁷ Ex. 27 (PG&E’s Response to SED Data Request No. 23) (describing PG&E’s procedural requirements for accessing asset records in support of operational and maintenance activities).

²²⁸ See PG&E OB at 45-47 (discussing requirements of section 192.605(b)(3)).

²²⁹ SED OB at 84-85.

²³⁰ PG&E OB at 45-47.

²³¹ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief), Appendix A at pp. A-10 to A-11 (stating that the section 451 violations should be rejected).

²³² SED has withdrawn its allegation that the Carmel incident specifically violated section 192.617. Compare SED OB at 80-83 with Ex. 1 at 40:14-18 (PWA Report).

²³³ Ex. 1 at 21 tbl.2 (PWA Report).

²³⁴ *Id.*

²³⁵ *Id.*

²³⁶ SED OB at 60-61, 84-85; Ex. 1 at 45 tbl.4 (PWA Report).

²³⁷ Ex. 27 (PG&E’s Response to SED Data Request No. 23) (describing PG&E’s procedural requirements for accessing asset records in support of operational and maintenance activities).

²³⁸ See PG&E OB at 45-47 (discussing requirements of section 192.605(b)(3)).

²³⁹ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

²⁴⁰ SED OB at 84-85.

²⁴¹ PG&E OB at 45-47.

²⁴² See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief), Appendix A at pp. A-10 to A-11 (stating that the section 451 violations should be rejected).

²⁴³ SED OB at 60-61, 85-86; Ex. 1 at 45 tbl.4 (PWA Report).

²⁴⁴ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

²⁴⁵ PG&E OB at C-1 to C-2.

²⁴⁶ *Id.*

²⁴⁷ *Id.* at C-3 to C-4.

²⁴⁸ SED OB at 85-86.

²⁴⁹ PG&E OB at 41-42, C-1 to C-2 (discussing 49 C.F.R. § 192.614), C-3 to C-4 (discussing Cal. Gov’t Code § 4216.3); see *supra* Appendix A at p. A-12 (discussing alleged Category 6 violations).

²⁵⁰ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

²⁵¹ PG&E OB at C-1 to C-2.

²⁵² Ex. 6, Attachment W040 at W040.004 (PG&E's Final Statement of Facts).

²⁵³ *Id.* at W040.005.

²⁵⁴ *Id.*

²⁵⁵ *Id.* at W040.004.

²⁵⁶ SED OB at 53-54, 76-77; Ex. 1 at 37:37-39, 38:6-8 (PWA Report).

²⁵⁷ *See* PG&E OB at 43-44 (discussing requirements of section 192.605(a)); Ex. 7, Attachment W091 (Utility Procedure TD-9500P-16, Rev. 1, Deactivation and/or Retirement of Underground Gas Facilities) (describing the process for deactivating subsurface facilities).

²⁵⁸ SED OB at 76-77.

²⁵⁹ *Id.* Although SED did not identify a specific date in July 1966 when it began to assess the violation, use of July 1, 1996 as the start date results in the \$5,278,000 figure that SED cites.

²⁶⁰ *Id.*

²⁶¹ *Id.*

²⁶² Note that in its Opening Brief, PG&E characterized section 192.605(a) as a recordkeeping regulation because when cited in reference to PG&E's alleged failure to follow a recordkeeping procedure, that is the correct descriptor. *See* 49 C.F.R. § 192.605(a). But, where, as here, SED cites section 192.605(a) in reference to PG&E's alleged failure to follow a non-recordkeeping-related procedure, the alleged violation is not properly within the scope of this OII and therefore in this Appendix, PG&E refers to such allegations as outside the scope. *See* PG&E OB at 41-42.

²⁶³ PG&E OB at 43-44.

²⁶⁴ SED OB at 53-54, 84; Ex. 1 at 38:6-8 (PWA Report).

²⁶⁵ Ex. 27 (PG&E's Response to SED Data Request No. 23) (describing PG&E's procedural requirements for accessing asset records in support of operational and maintenance activities).

²⁶⁶ *See* PG&E OB at 45-47 (discussing requirements of section 192.605(b)(3)).

²⁶⁷ *See supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

²⁶⁸ SED OB at 84.

²⁶⁹ PG&E OB at 45-47.

²⁷⁰ *See supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief), Appendix A at pp. A-10 to A-11 (stating that the section 451 violations should be rejected).

²⁷¹ SED OB at 53-54, 85; Ex. 1 at 37:40 to 38:1 (PWA Report).

²⁷² *See supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

²⁷³ PG&E OB at C-1 to C-2.

²⁷⁴ *Id.*

²⁷⁵ *Id.* at C-3 to C-4.

²⁷⁶ SED OB at 85.

²⁷⁷ PG&E OB at 41-42, C-1 to C-2 (discussing 49 C.F.R. § 192.614), C-3 to C-4 (discussing Cal. Gov't Code § 4216.3); *see supra* Appendix A at p. A-12 (discussing alleged Category 6 violations).

²⁷⁸ *See supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

²⁷⁹ PG&E OB at C-1 to C-2.

²⁸⁰ SED has withdrawn its allegation that PG&E violated section 961(d)(10) in regard to the Morgan Hill incident. *Compare* SED OB at 53-54 *with* Ex. 1 at 38:3-5 (PWA Report).

²⁸¹ Ex. 1 at 16 tbl.2 (PWA Report).

²⁸² *Id.*

²⁸³ *Id.*

²⁸⁴ SED OB at 63-64, 88; Ex. 1 at 42 tbl.4 (PWA Report).

²⁸⁵ *See* PG&E OB at 43-44 (discussing requirements of section 192.605(a)); Ex. 1 at 42 tbl.4 (PWA Report) (“GTS Standard S4129 . . . requires cutting off services as close to the main as possible.”).

²⁸⁶ PG&E OB at C-3.

²⁸⁷ SED OB at 88.

²⁸⁸ Note that in its Opening Brief, PG&E characterized section 192.605(a) as a recordkeeping regulation because when cited in reference to PG&E’s alleged failure to follow a recordkeeping procedure, that is the correct descriptor. *See* 49 C.F.R. § 192.605(a). But, where, as here, SED cites section 192.605(a) in reference to PG&E’s alleged failure to follow a non-recordkeeping procedure, the alleged violation is not properly within the scope of this OII and therefore in this Appendix, PG&E refers to such allegations as outside the scope. *See* PG&E OB at 41-42, C-3 (discussing 49 C.F.R. § 192.727).

²⁸⁹ PG&E OB at 43-44; *see supra* Appendix A at pp. A-13 to A-14 (discussing alleged Category 8 violations).

²⁹⁰ SED OB at 63-64, 85-86; Ex. 1 at 42 tbl.4 (PWA Report).

²⁹¹ PG&E OB at C-1 to C-2.

²⁹² *Id.*

²⁹³ *Id.* at C-3 to C-4.

²⁹⁴ SED OB at 85-86.

²⁹⁵ PG&E OB at 41-42, C-1 to C-2 (discussing 49 C.F.R. § 192.614), C-3 to C-4 (discussing Cal. Gov’t Code § 4216.3); *see supra* Appendix A at p. A-12 (discussing alleged Category 6 violations).

²⁹⁶ PG&E OB at C-1 to C-2.

²⁹⁷ Ex. 6, Attachment W040 at W040.002 (PG&E’s Final Statement of Facts).

²⁹⁸ *Id.* at W040.002-.003.

²⁹⁹ *Id.* at W040.003.

³⁰⁰ *Id.* at W040.002.

³⁰¹ SED OB at 52-53, 76-77; Ex. 1 at 37:31-32 (PWA Report).

³⁰² *See* PG&E OB at 43-44 (discussing requirements of section 192.605(a)).

³⁰³ 1/19/16 Tr. at 158:27 to 159:20 (SED/PWA).

³⁰⁴ SED OB at 76-77.

³⁰⁵ *Id.* Although SED did not identify a specific date in 2005 when it began to assess the violation, use of 1/1/2005 as the start date results in the \$1,380,000 figure that SED cites.

³⁰⁶ PG&E OB at 43-44.

³⁰⁷ SED OB at 52-53, 84; Ex. 1 at 37:32-34 (PWA Report).

³⁰⁸ Ex. 27 (PG&E's Response to SED Data Request No. 23) (describing PG&E's procedural requirements for accessing asset records in support of operational and maintenance activities).

³⁰⁹ *See* PG&E OB at 45-47 (discussing requirements of section 192.605(b)(3)).

³¹⁰ *See supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

³¹¹ SED OB at 84.

³¹² PG&E OB at 45-47.

³¹³ *See supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief), Appendix A at pp. A-10 to A-11 (stating that the section 451 violations should be rejected).

³¹⁴ SED OB at 85.

³¹⁵ *See supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

³¹⁶ PG&E OB at C-1 to C-2.

³¹⁷ *Id.*

³¹⁸ *See supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

³¹⁹ PG&E OB at C-3 to C-4.

³²⁰ SED OB at 85.

³²¹ PG&E OB at 41-42, C-1 to C-2 (discussing 49 C.F.R. § 192.614), C-3 to C-4 (discussing Cal. Gov't Code § 4216.3); *see supra* Appendix A at p. A-12 (discussing alleged Category 6 violations).

³²² *See supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

³²³ PG&E OB at C-1 to C-2.

³²⁴ Ex. 1 at 24 tbl.2 (PWA Report).

³²⁵ *Id.*

³²⁶ SED OB at 76, 78.

³²⁷ *See supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

³²⁸ SED OB at 57-58, 76, 78.

³²⁹ *Id.* at 76, 78.

³³⁰ *Id.*

³³¹ *See supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief); PG&E OB at 43-44.

³³² SED OB at 57-58, 84-85; Ex. 1 at 47 tbl.4 (PWA Report).

³³³ Ex. 27 (PG&E's Response to SED Data Request No. 23) (describing PG&E's procedural requirements for accessing asset records in support of operational and maintenance activities).

³³⁴ *See* PG&E OB at 45-47 (discussing requirements of section 192.605(b)(3)).

³³⁵ *See supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

³³⁶ SED OB at 84-85.

³³⁷ PG&E OB at 45-47.

³³⁸ *See supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief), Appendix A at pp. A-10 to A-11 (stating that the section 451 violations should be rejected).

³³⁹ SED OB at 57-58, 85-86; Ex. 1 at 47 tbl.4 (PWA Report).

³⁴⁰ PG&E OB at C-1 to C-2.

³⁴¹ *Id.*

³⁴² *Id.* at C-3 to C-4.

³⁴³ SED OB at 85-86.

³⁴⁴ PG&E OB at 41-42, C-1 to C-2 (discussing 49 C.F.R. § 192.614), C-3 to C-4 (discussing Cal. Gov't Code § 4216.3); *see supra* Appendix A at p. A-12 (discussing alleged Category 6 violations).

³⁴⁵ PG&E OB at C-1 to C-2.

³⁴⁶ SED OB at 57-58, 87; Ex. 1 at 47 tbl.4 (PWA Report).

³⁴⁷ PG&E OB at C-2.

³⁴⁸ SED OB at 87.

³⁴⁹ *Id.*

³⁵⁰ PG&E OB at 41-42, C-2 (discussing 49 C.F.R. § 192.723); *see supra* Appendix A at pp. A-13 to A-14 (discussing alleged Category 8 violations).

³⁵¹ Ex. 1 at 15 tbl.2 (PWA Report).

³⁵² *Id.*

³⁵³ SED OB at 67, 76, 78; Ex. 1 at 42 tbl.4 (PWA Report).

³⁵⁴ *See* PG&E OB at 43-44 (discussing requirements of section 192.605(a)).

³⁵⁵ SED OB at 76, 78.

³⁵⁶ PG&E OB at 43-44.

³⁵⁷ SED OB at 67, 84-85; Ex. 1 at 42 tbl.4 (PWA Report).

³⁵⁸ Ex. 27 (PG&E's Response to SED Data Request No. 23) (describing PG&E's procedural requirements for accessing asset records in support of operational and maintenance activities).

³⁵⁹ *See* PG&E OB at 45-47 (discussing requirements of section 192.605(b)(3)).

³⁶⁰ *See supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

³⁶¹ SED OB at 84-85.

³⁶² PG&E OB at 45-47.

³⁶³ *See supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief), Appendix A at pp. A-10 to A-11 (stating that the section 451 violations should be rejected).

³⁶⁴ SED OB at 67, 85-86; Ex. 1 at 42 tbl.4 (PWA Report).

³⁶⁵ PG&E OB at C-1 to C-2.

³⁶⁶ *Id.*

³⁶⁷ *Id.* at C-3 to C-4.

³⁶⁸ SED OB at 85-86.

³⁶⁹ PG&E OB at 41-42, C-1 to C-2 (discussing 49 C.F.R. § 192.614), C-3 to C-4 (discussing Cal. Gov't Code § 4216.3); *see supra* Appendix A at p. A-12 (discussing alleged Category 6 violations).

³⁷⁰ PG&E OB at C-1 to C-2.

³⁷¹ Ex. 1 at 23 tbl.2 (PWA Report).

³⁷² *Id.*

³⁷³ SED OB at 65, 76, 78; Ex. 1 at 46 tbl.4 (PWA Report).

³⁷⁴ *See* PG&E OB at 43-44 (discussing requirements of section 192.605(a)).

³⁷⁵ SED OB at 76, 78.

³⁷⁶ *Id.*

³⁷⁷ *Id.*

³⁷⁸ *Id.*

³⁷⁹ PG&E OB at 43-44.

³⁸⁰ SED OB at 65, 84-85; Ex. 1 at 46 tbl.4 (PWA Report).

³⁸¹ Ex. 27 (PG&E's Response to SED Data Request No. 23) (describing PG&E's procedural requirements for accessing asset records in support of operational and maintenance activities).

³⁸² See PG&E OB at 45-47 (discussing requirements of section 192.605(b)(3)).

³⁸³ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

³⁸⁴ SED OB at 84-85.

³⁸⁵ PG&E OB at 45-47.

³⁸⁶ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief), Appendix A at pp. A-10 to A-11 (stating that the section 451 violations should be rejected).

³⁸⁷ SED OB at 85-86.

³⁸⁸ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

³⁸⁹ PG&E OB at C-1 to C-2.

³⁹⁰ *Id.*

³⁹¹ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

³⁹² PG&E OB at C-3 to C-4.

³⁹³ SED OB at 85-86.

³⁹⁴ PG&E OB at 41-42, C-1 to C-2 (discussing 49 C.F.R. § 192.614), C-3 to C-4 (discussing Cal. Gov't Code § 4216.3); see *supra* Appendix A at p. A-12 (discussing alleged Category 6 violations).

³⁹⁵ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

³⁹⁶ PG&E OB at C-1 to C-2.

³⁹⁷ Ex. 1 at 57:4-11, 57 tbl.8 (PWA Report).

³⁹⁸ *Id.*

³⁹⁹ SED OB at 76, 78.

⁴⁰⁰ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

⁴⁰¹ See PG&E OB at 43-44 (discussing requirements of section 192.605(a)).

⁴⁰² SED OB at 76, 78.

⁴⁰³ *Id.*

⁴⁰⁴ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief); PG&E OB at 43-44.

⁴⁰⁵ See PG&E OB at 43-44.

⁴⁰⁶ Ex. 1 at 57:4-11, 57 tbl.8 (PWA Report).

⁴⁰⁷ *Id.*

⁴⁰⁸ SED OB at 76, 79.

⁴⁰⁹ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

⁴¹⁰ See PG&E OB at 43-44 (discussing requirements of section 192.605(a)).

⁴¹¹ SED OB at 76, 79.

⁴¹² *Id.*

⁴¹³ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief); PG&E OB at 43-44.

⁴¹⁴ See PG&E OB at 43-44.

⁴¹⁵ Ex. 1 at 57:4-11, 57 tbl.8 (PWA Report).

⁴¹⁶ *Id.*

⁴¹⁷ Ex. 4 at 4-14:17 to 4-15:15 (PG&E Reply Testimony, Trevino).

⁴¹⁸ SED OB at 76, 79.

⁴¹⁹ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

⁴²⁰ Ex. 4 at 4-14:17 to 4-15:15 (PG&E Reply Testimony, Trevino) (stating that “for the two San Jose leak repairs identified in Table 8, PG&E conducted a further investigation and determined that those capital jobs were in fact mapped timely, but to nearby addresses based on final repair information”).

⁴²¹ SED OB at 76, 79.

⁴²² *Id.*

⁴²³ *Id.*

⁴²⁴ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief);

⁴²⁵ PG&E OB at 43-44.

⁴²⁶ Ex. 1 at 57:4-11, 57 tbl.8 (PWA Report).

⁴²⁷ *Id.*

⁴²⁸ Ex. 4 at 4-14:17 to 4-15:15 (PG&E Reply Testimony, Trevino).

⁴²⁹ SED OB at 76, 79.

⁴³⁰ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

⁴³¹ Ex. 4 at 4-14:17 to 4-15:15 (PG&E Reply Testimony, Trevino) (stating that “for the two San Jose leak repairs identified in Table 8, PG&E conducted a further investigation and determined that those capital jobs were in fact mapped timely, but to nearby addresses based on final repair information”).

⁴³² SED OB at 76, 79.

⁴³³ *Id.*

⁴³⁴ *Id.*

⁴³⁵ Ex. 4 at 4-14:17 to 4-15:15 (PG&E Reply Testimony, Trevino).

⁴³⁶ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief); PG&E OB at 43-44.

⁴³⁷ Ex. 4 at 5-14:22 to 5-15:13 (PG&E Reply Testimony, Singh).

⁴³⁸ *Id.* at 5-14:22 to 5-16:9 (PG&E Reply Testimony, Singh).

⁴³⁹ SED OB at 86.

⁴⁴⁰ *Id.* at 67-71, 86; see *supra* Appendix A at pp. A-12 to A-13 (discussing alleged MAOP-related violations).

⁴⁴¹ See PG&E OB at 43-44 (discussing requirements of section 192.605(a)).

⁴⁴² SED OB at 67-71, 86.

⁴⁴³ SED OB at 86.

⁴⁴⁴ *Id.*

⁴⁴⁵ *Id.*

⁴⁴⁶ *Id.*

⁴⁴⁷ See *supra* Appendix A at pp. A-12 to A-13 (discussing alleged MAOP-related violations); PG&E OB at 8-9 (discussing the applicable burden of proof); *id.* at 43-44 (discussing requirements of section 192.605(a)).

⁴⁴⁸ See *supra* PG&E Reply Brief pp. 9-10; Appendix A at pp. A-12 to A-13.

⁴⁴⁹ SED OB at 79.

⁴⁵⁰ *Id.* at 79-80.

⁴⁵¹ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

⁴⁵² See *supra* Appendix A at p. A-6.

⁴⁵³ *Id.*

⁴⁵⁴ *Id.*

⁴⁵⁵ SED OB at 79-80.

⁴⁵⁶ *Id.*

⁴⁵⁷ *Id.*

⁴⁵⁸ *Id.*

⁴⁵⁹ *See supra* PG&E Reply Brief pp. 43-47; PG&E OB at 8-9 (discussing the applicable burden of proof); *id.* at 43-44 (discussing requirements of section 192.605(a)).

⁴⁶⁰ *See supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief), pp. 40-43 (discussing the alleged Category 2 violations).

⁴⁶¹ *See supra* Appendix A at pp. A-4 to A-6.

⁴⁶² PG&E OB at 51-52; SED OB at 79.

⁴⁶³ SED OB at 79-80.

⁴⁶⁴ *See supra* PG&E Reply Brief pp. 33-34.

⁴⁶⁵ *Id.*

⁴⁶⁶ *See supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief), pp. 34-37 (discussing SED's failure to allege any violations associated with the missing De Anza records in its direct testimony).

⁴⁶⁷ SED OB at 79-80.

⁴⁶⁸ *Id.*

⁴⁶⁹ *See supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief), pp. 34-37 (discussing SED's failure to allege any violations associated with the missing De Anza records in its direct testimony); Appendix A at pp. A-4 to A-6.

⁴⁷⁰ *See supra* PG&E Reply Brief pp. 33-34, 37-40 (discussing the lack of causal connection between the De Anza A Forms and the Mountain View incident and PG&E's timely disclosure of information relevant to the De Anza A Forms); PG&E OB at 8-9 (discussing the applicable burden of proof); *id.* at 43-44 (discussing requirements of section 192.605(a)); Appendix A at pp. A-4 to A-6.

⁴⁷¹ SED OB at 80-81.

⁴⁷² *Id.*

⁴⁷³ *See supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

⁴⁷⁴ PG&E OB at 30-31; *see supra* PG&E Reply Brief p. 9; Appendix A at p. A-7.

⁴⁷⁵ SED OB at 80-81.

⁴⁷⁶ *Id.*

⁴⁷⁷ *See supra* Appendix A at p. A-9.

⁴⁷⁸ PG&E OB at 8-9 (discussing the applicable burden of proof).

⁴⁷⁹ *See supra* PG&E Reply Brief p. 9.

⁴⁸⁰ SED OB at 81.

⁴⁸¹ *Id.*

⁴⁸² SED OB at 80-81.

⁴⁸³ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief), pp. 34-37 (discussing SED's failure to allege any violations associated with the missing De Anza records in its direct testimony).

⁴⁸⁴ See *supra* PG&E Reply Brief pp. 34-37 (discussing SED's failure to allege any violations associated with the missing De Anza records in its direct testimony).

⁴⁸⁵ SED OB at 80-81.

⁴⁸⁶ *Id.*

⁴⁸⁷ *Id.*

⁴⁸⁸ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief), pp. 34-37 (discussing SED's failure to allege any violations associated with the missing De Anza records in its direct testimony); Appendix A at pp. A-8 to A-9.

⁴⁸⁹ See *supra* PG&E Reply Brief pp. 33-34, 37-40 (discussing the lack of causal connection between the De Anza A Forms and the Mountain View incident and PG&E's timely disclosure of information relevant to the De Anza A Forms); PG&E OB at 8-9 (discussing the applicable burden of proof).

⁴⁹⁰ SED OB at 14-15, 81-82; Ex. 1 at 37:36-39, 42 tbl.4 (PWA Report) (describing Morgan Hill and San Jose II incidents); Ex. 6, Attachment W053 at W053.017 (Response to GD 2-20-15 NOV, Appendix A) (describing Lafayette incident).

⁴⁹¹ SED OB at 80-82.

⁴⁹² See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

⁴⁹³ See *supra* Appendix A at p. A-8.

⁴⁹⁴ See *supra* PG&E Reply Brief pp. 45-46; Appendix A at p. A-8.

⁴⁹⁵ SED OB at 80-82.

⁴⁹⁶ *Id.*

⁴⁹⁷ *Id.*

⁴⁹⁸ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

⁴⁹⁹ See *supra* Appendix A at p. A-8.

⁵⁰⁰ See *supra* PG&E Reply Brief pp. 45-46; Appendix A at pp. A-8 to A-9; PG&E OB at 8-9 (discussing the applicable burden of proof).

⁵⁰¹ SED OB at 82.

⁵⁰² *Id.* at 80, 82-83.

⁵⁰³ See *supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

⁵⁰⁴ See *supra* Appendix A at p. A-8.

⁵⁰⁵ *Id.*

⁵⁰⁶ See *supra* Appendix A at pp. A-7 to A-8.

⁵⁰⁷ SED OB at 80, 82-83.

⁵⁰⁸ *Id.*

⁵⁰⁹ *Id.*

⁵¹⁰ *See supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

⁵¹¹ *See supra* Appendix A at pp. A-7 to A-9 (discussing alleged Category 3 violations).

⁵¹² *See supra* Appendix A at pp. A-8 to A-9; PG&E OB at 8-9 (discussing the applicable burden of proof).

⁵¹³ SED OB at 83.

⁵¹⁴ *Id.* at 80, 83.

⁵¹⁵ *See supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

⁵¹⁶ *See supra* Appendix A at p. A-8.

⁵¹⁷ *See supra* PG&E Reply Brief p. 44; Appendix A at p. A-8.

⁵¹⁸ SED OB at 80, 83.

⁵¹⁹ *Id.*

⁵²⁰ *Id.*

⁵²¹ *See supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

⁵²² *See supra* Appendix A at pp. A-8 to A-9.

⁵²³ *Id.*; PG&E OB at 8-9 (discussing the applicable burden of proof).

⁵²⁴ SED OB at 83.

⁵²⁵ *Id.* at 80, 83.

⁵²⁶ *See supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

⁵²⁷ PG&E OB at 41-42, C-1 to C-2 (discussing 49 C.F.R. § 192.613), C-2 (discussing 49 C.F.R. § 192.617); *see* 49 C.F.R. §§ 192.605(b)(4), 192.605(b)(8); Cal. Pub. Util. Code §§ 451, 961(d)(1).

⁵²⁸ *See supra* Appendix A at p. A-9; Ex. 4 at 3-5:17 to 3-23:20 (PG&E Reply Testimony, Higgins).

⁵²⁹ SED OB at 80, 83.

⁵³⁰ *Id.*

⁵³¹ *Id.*

⁵³² *See supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief).

⁵³³ *See supra* Appendix A at p. A-9; PG&E OB at C-1 to C-2 (discussing 49 C.F.R. § 192.614), C-3 to C-4 (discussing Cal. Gov't Code § 4216.3).

⁵³⁴ *See supra* Appendix A at p. A-9; PG&E OB at 8-9 (discussing the applicable burden of proof).

⁵³⁵ SED OB at 45-50, 83-84.

⁵³⁶ *See supra* PG&E Reply Brief pp. 37-40.

⁵³⁷ SED OB at 83-84.

⁵³⁸ *See supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief), pp. 34-37 (discussing SED's failure to allege any violations associated with the missing De Anza records in its direct testimony).

⁵³⁹ *See supra* PG&E Reply Brief pp. 37-40.

⁵⁴⁰ SED OB at 83-84.

⁵⁴¹ *Id.*

⁵⁴² *See supra* PG&E Reply Brief pp. 30-33 (arguing that the Commission should not consider the new violations that SED alleges for the first time in its Opening Brief), pp. 34-37 (discussing SED's failure to allege any violations associated with the missing De Anza records in its direct testimony); Appendix A at pp. A-9 to A-10 (discussing alleged Category 4 violations).

⁵⁴³ *See supra* PG&E Reply Brief pp. 37-40; Appendix A at pp. A-9 to A-10.

APPENDIX C

PG&E's Responses to Proposed Remedial Measures

PWA'S RECOMMENDATIONS ¹		
Proposed Remedial Measure	PG&E's Response	PG&E's Alternative Proposal
<p>1. Plastic Inserts and Stubs: PWA recommends that PG&E examine the costs and benefits associated with undertaking a systematic identification and correction effort for unmapped plastic inserts and stubs, relying on the experiences of other utilities in dealing with these issues.²</p>	<p>PG&E has agreed to conduct benchmarking analyses to identify industry best practices in addressing unmapped stubs and plastic inserts, after which it will evaluate which of these best practices can be implemented at PG&E.³ Additionally, PG&E has already utilized new technology platforms and instituted multiple ongoing initiatives involving the use of analytical tools to identify and investigate potential unmapped assets and, where appropriate, proactively correct the related maps and records.⁴</p> <p>Moreover, PG&E has implemented several backstop measures to reduce the potential risk of incidents involving unmapped assets. For example, PG&E created a Gas Carrier Pipe Checklist to verify the existence of potential plastic inserts in the field prior to conducting work, which PWA recognizes as “an effective backstop approach to PG&E’s unmapped or unrecorded plastic inserted lines.”⁵ PG&E also developed a process to use a Bolt on Saddle Punch Tee, a device that can be used to verify the existence of inserted plastic without penetrating the gas carrier pipe, which is described by PWA as a “very useful backstop measure.”⁶ PG&E also has been actively investigating new advanced technologies for detecting such unmapped assets.⁷</p> <p>These initiatives demonstrate that PG&E is taking a proactive approach to continue to enhance its maps and records.</p>	<p>None.</p>

¹ Ex. 1 at 75:25 to 76:29 (PWA Report).

² *Id.* at 75:25-32 (PWA Report).

³ Ex. 4 at 1-7 (PG&E Reply Testimony, Howe); *id.* at 5-6:13-17, 5-8:12-17, 5-11:25 to 5-12:13 (PG&E Reply Testimony, Singh); *id.* at 6-15:29 to 6-16:8 (PG&E Reply Testimony, Thierry).

⁴ PG&E is continuously looking for new methods to gather intelligence from its newly digitized data in GD GIS and also using CAP mapping correction notifications to detect evidence of potential unmapped stubs or inserts. PG&E OB at 18-24; Ex. 4 at 4-16:18 to 4-17:4 (PG&E Reply Testimony, Trevino); *id.* at 5-25:14-26, 5-26:31 to 5-27:22 (PG&E Reply Testimony, Singh).

⁵ Ex. 1 at 65 tbl.9 (PWA Report); Ex. 4 at 5-8:21 to 5-10:8 (PG&E Reply Testimony, Singh).

⁶ PG&E OB at A-3, A-6 n.33; Ex. 1 at 68:9-13 (PWA Report); Ex. 4 at 5-10:12 to 5-11:15 (PG&E Reply Testimony, Singh).

PWA'S RECOMMENDATIONS¹

Proposed Remedial Measure	PG&E's Response	PG&E's Alternative Proposal
2. Stub Removal: PWA recommends that PG&E, considering risk tradeoffs, reexamine more aggressively eliminating existing stubs. ⁸	<p>Though this recommendation does not implicate recordkeeping issues, PG&E already has a policy in place for systematically identifying and, where appropriate, removing stubs.⁹ To assist the tracking and monitoring of potential stubs for removal, PG&E will use data captured from GSRs that have been integrated into GD GIS to create a centralized database of gas service stubs.¹⁰ PWA acknowledges that this is the type of stub removal program that it considers to be proactive.¹¹ In addition, PG&E is researching industry best practices regarding mapped stubs, as noted above.¹² Following the benchmarking analyses, PG&E will evaluate which of these best practices can be implemented at PG&E to potentially more aggressively eliminate stubs.¹³</p> <p>Moreover, PG&E's backstop measures, such as the Quality Management Program, and ongoing improvements in training and procedures for locate and mark crews, reduce the likelihood of existing unmapped stubs resulting in potential significant incidents.¹⁴</p>	None.

⁷ For example, PG&E initiated an industry R&D project with the Gas Technology Institute in collaboration with other gas distribution system operators to investigate commercially available technologies to detect potential inserted plastic pipe in gas distribution steel lines. This project tested several possible detection methods in the laboratory, but none have proven feasible in the field. PG&E has also been supporting the efforts of a start-up company that is developing ultrasonic means that may identify potential plastic inserts, demonstrating PG&E's continued commitment to identifying and developing new technologies that further build upon PG&E's current methods and procedures. PG&E OB at 49, 56, A-3; Ex. 4 at 5-11:27 to 5-12:13 (PG&E Reply Testimony, Singh).

⁸ Ex. 1 at 75:33-36 (PWA Report).

⁹ PG&E currently monitors and, where appropriate, removes mapped stubs that are not deemed "useful." To assist in this endeavor, on June 1, 2012, PG&E published a revised procedure that outlines the steps for monitoring and removing stub services. Ex. 4 at 5-6:21 to 5-7:7 (PG&E Reply Testimony, Singh); Ex. 7, Attachment W091 (Utility Procedure TD-9500P-16, Rev. 1, Deactivation and/or Retirement of Underground Gas Facilities).

¹⁰ PG&E OB at 18, A-1; Ex. 4 at 5-7:8-10 (PG&E Reply Testimony, Singh).

¹¹ Ex. 1 at 59 tbl.9 (PWA Report); Ex. 7, Attachment W095 at W095.007 (SED's First Responses to PG&E's Data Requests Sets 2 and 3) (stating that a formal stub program to eliminate stubs would be considered proactive).

¹² Ex. 4 at 1-7 (PG&E Reply Testimony, Howe).

¹³ *Id.* at 6-15:31 to 6-16:8 (PG&E Reply Testimony, Thierry).

¹⁴ PG&E OB at 16-17, 26-27, A-1 to A-2; Ex. 4 at 3-12:11 to 3-13:2, 3-16:1-30, 3-22:1-19 (PG&E Reply Testimony, Higgins); *id.* at 5-32:5-12, 5-33:12-22 (PG&E Reply Testimony, Singh).

PWA'S RECOMMENDATIONS¹

Proposed Remedial Measure	PG&E's Response	PG&E's Alternative Proposal
3. MAOP: PWA recommends that PG&E assess whether the method it used for setting the MAOP for some of its distribution systems creates additional risk and, if so, propose measures to address it. It also recommends that, when PG&E assesses what distribution systems to prioritize for replacement, the Company take into account the method by which it set MAOP for that system. ¹⁵	The parties agree there is no basis to conclude that the method PG&E used for setting MAOP on the distribution systems at issue in this proceeding creates any safety risk. ¹⁶ Nevertheless, in light of PWA's recommendation, PG&E committed to comparing the leak survey results for the approximately 243 systems with MAOP set using the alternative method against PG&E's other distribution systems to determine whether additional measures were necessary. ¹⁷ PG&E has completed the MAOP risk analysis suggested in SED's proposed remedy (h) and proposes to update that analysis once PG&E has completed the MAOP review identified in SED (g).	None.
4. Internal Audit: PWA recommends that the CPUC take advantage of the insights PG&E has gleaned from its internal audit process into potential soft spots in the massive change effort being undertaken by PG&E to help focus its inspections, perhaps on the adequacy of the action plan given the internal audit findings on the effectiveness of implementation, and on the impact of corrective actions. ¹⁸	While this is not a recommendation for PG&E, PG&E supports this recommendation. ¹⁹ PG&E's Internal Auditing group (IA) performs audits to evaluate the effectiveness of controls on new and existing business processes, which allows management to then address any control gaps and check whether the processes are being implemented effectively. ²⁰ As a reflection of the value PG&E places on its internal audit process, a Risk and Compliance Committee comprised of senior management is responsible for ensuring that corrective actions are implemented following an internal audit. ²¹ PWA observed that, based on its review of IA reports and follow-up action plans, "PG&E management is making good use of these processes to monitor the impact . . . of [] its improvement programs." ²²	None.

¹⁵ Ex. 1 at 75:37 to 76:2 (PWA Report).

¹⁶ PG&E OB at 56-62. PG&E's distribution systems operate at considerably less than 20 percent of their maximum potential stress levels and accordingly operate with a significant margin of safety. *Id.* at 61. Moreover, these systems have been subjected to maintenance and operations requirements in accordance with the federal and state safety regulations. *Id.*

¹⁷ Ex. 4 at 5-21:4-20 (PG&E Reply Testimony, Singh).

¹⁸ Ex. 1 at 76:3-9 (PWA Report).

¹⁹ Ex. 4 at 1-8 (PG&E Reply Testimony, Howe).

²⁰ *Id.* at 5-22:16-19 (PG&E Reply Testimony, Singh).

²¹ Ex. 1 at 76:5-6 (PWA Report); Ex. 4 at 1-8 (PG&E Reply Testimony, Howe); *id.* at 3-23:3-20 (PG&E Reply Testimony, Higgins).

PWA'S RECOMMENDATIONS¹

Proposed Remedial Measure	PG&E's Response	PG&E's Alternative Proposal
<p>5. Plastic Inserts: PWA recommends that SED expand its practice of incorporating into its inspections an investigation of whether plastic pipe has been inserted in existing steel lines. PWA recommends that SED focus on the results of major maintenance activities undertaken subsequent to PG&E's full implementation of GD GIS and its associated practices and procedures.²³</p>	<p>While this is not a recommendation for PG&E, PG&E supports this recommendation and looks forward to cooperating with SED's efforts to identify unmapped plastic inserts, as noted above.²⁴ See PG&E's Response to PWA's Recommendation 1, <i>supra</i> p. C-1.</p>	<p>None.</p>
<p>6. Causal Analysis: PWA recommends that PG&E consider reexamining both how it defines "root cause" and how it integrates corrective actions related to those root causes into existing management practices.²⁵</p>	<p>PG&E has already followed this recommendation. In response to PWA's recommendation, PG&E reexamined its existing policy for causal analysis, and it is substantially identical to the policy that PWA recommends; PG&E's causal evaluation policies and procedures utilize a definition of "causal evaluation" that incorporates the objectives of root cause analysis that were outlined by PWA.²⁶</p>	<p>None.</p>

²² Ex. 1 at 75:3-6 (PWA Report).

²³ *Id.* at 76:10-13 (PWA Report).

²⁴ PG&E OB at 19-20, A-3; Ex. 4 at 1-8 (PG&E Reply Testimony, Howe).

²⁵ Ex. 1 at 76:14-29 (PWA Report).

²⁶ See Ex. 4 at 1-8 (PG&E Reply Testimony, Howe); *id.* at 5-28:26 to 5-31:10 (PG&E Reply Testimony, Singh). PG&E's causal evaluation standard defines a causal evaluation as "a structured process used to determine, document and communicate the cause or reason why an incident, issue or error occurred. [Causal evaluations] are necessary to identify the cause of the incident, issue or error, to prevent or minimize the probability of recurrence and to apply continuous improvement." Ex. 7, Attachment W114 at W114.001 (Utility Standard GOV-6102S, Enterprise Causal Evaluation). This definition incorporates the "objectives" of the root cause analysis outlined by PWA, as the Standard requires the identification of the cause and contributing factors, corrective actions, and lessons learned that will inform continuous improvement. Ex. 4 at 5-30:26 to 5-31:10 (PG&E Reply Testimony, Singh).

SED'S PROPOSED REMEDIES²⁷

Proposed Remedial Measure	PG&E's Response	PG&E's Alternative Proposal
<p>a. <u>Systemic Review of Records:</u> PG&E should conduct a systemic review of its records to determine if there are other categories of missing records of the same magnitude as the missing De Anza records. Within 90 days of a final Commission decision in this matter, PG&E should file a report that identifies all of the categories of missing records for its gas distribution system identified in this review and an assessment of how the records were lost.</p>	<p>PG&E acknowledges that it does not have perfect records. Like other utility companies, PG&E faces challenges with records that in many instances date back many decades, particularly given that PG&E is the product of hundreds of acquisitions that started in the late 19th century.²⁸</p> <p>SED already has requested that PG&E identify known missing document types during discovery. In response to this data request, PG&E explained that some missing or incomplete information may exist currently or may have existed at some time in the past in nearly every category of PG&E's gas distribution asset records, and in particular, through its due diligence efforts, identified the De Anza records and the MAOP records.²⁹ Thus, PG&E interprets this proposed remedy as seeking the identification of <i>additional</i> categories of records that have not already been described in this proceeding.</p> <p>SED's proposed remedy is exceedingly broad: It directs PG&E to conduct a systemic review to identify all categories of missing records, without any recommendation on how PG&E would conduct such a review of millions of records. Moreover, it directs PG&E to do so and to file a report, within 90 days of a Commission decision.</p> <p>This remedy does not consider the fact that PG&E has embarked on an ambitious project to digitize all its distribution records, and in doing so, has undertaken a number of initiatives to identify potential gaps in its records during the migration of asset data to electronic databases such as GD GIS.³⁰ These efforts—which are in line with PG&E's long-term efforts to continue to enhance its records—take years, not days.</p>	<p>PG&E shall:</p> <ol style="list-style-type: none"> (1) Define activities to develop an extent of condition plan for potential missing GSRs and as-built records for gas distribution mains within 90 days of a Commission decision. (2) Develop an associated extent of condition report based on item (1) with recommended actions within 90 days of decision.

²⁷ SED OB at 94-96.

²⁸ Ex. 4 at 1-2:13, 1-10:23 to 1-15:9 (PG&E Reply Testimony, Howe).

²⁹ See, e.g., Ex. 33 (PG&E's Supplemental Response No. 1 to SED Data Request No. 25).

³⁰ PG&E OB at 19, A-1; Ex. 4 at 2-19:3 to 2-22:26 (PG&E Reply Testimony, Singh).

SED'S PROPOSED REMEDIES²⁷

Proposed Remedial Measure	PG&E's Response	PG&E's Alternative Proposal
<i>(continued)</i>	<p>This proposed remedy, as well as proposals (b) and (c) below, is far broader than the six PWA recommendations or SED's proposed remedies (d), (e), (g), and (h), which are tailored to address the issues directly raised in this proceeding. As described above, PG&E has already agreed to implement PWA's recommendations. PG&E cannot realistically implement numerous broad-based programs all at once to search for all missing records or missing assets; instead, it should allocate its focus to prioritize measures that will most enhance its system safety. Thus, while PG&E agrees that having perfect records is an aspirational goal, it respectfully disagrees with this remedy as drafted.</p> <p>Rather than adopting a broad, unspecified remedy to identify all categories of missing records, PG&E proposes an alternative that focuses on efforts not yet implemented that would continue to improve the Company's distribution records and enhance safety.</p> <p>It is undisputed that PG&E's primary distribution "records" consist of: (1) plat maps; (2) Gas Service Records (GSRs); (3) A Forms; and (4) as-built records for gas distribution mains.³¹ PG&E's response therefore addresses each of these types of records:</p> <p><u>Plat Maps:</u> As part of the process of converting PG&E's existing distribution asset data from MET to GD GIS, approximately 21,000 individual plat maps were migrated to GD GIS as one continuous map for its entire system.³² During this conversion process, anomalies in the data being converted—including differences in the descriptions of assets mapped across contiguous plat maps—were automatically flagged through the PAR process, which is a process set up to ensure that any such discrepancies are investigated and resolved.³³ PWA evaluated the PAR process as an "innovative practice."³⁴</p>	

³¹ Ex. 4 at 2-10:28-31 (PG&E Reply Testimony, Singh).

³² *Id.* at 2-13:18-21 (PG&E Reply Testimony, Singh).

³³ PG&E OB at 19, A-1; Ex. 4 at 2-19:6-23 (PG&E Reply Testimony, Singh).

³⁴ Ex. 1 at 59 tbl.9 (PWA Report).

SED'S PROPOSED REMEDIES²⁷

Proposed Remedial Measure	PG&E's Response	PG&E's Alternative Proposal
<i>(continued)</i>	<p><u>As-Built Records:</u> As a result of the Gas Distribution Mains As-Built Digitization initiative that began in 2015 and is projected to be completed in 2017, nearly 10 million historic paper as-built records will be scanned and made available electronically.³⁵ Once all of these records are scanned, PG&E will be able to explore the feasibility of using analytics to identify potential missing as-built records for gas distribution mains, if any.</p> <p><u>A Forms:</u> A Forms are used to document leak information and to determine pipe replacements. PG&E's mappers primarily use GSRs to perform mapping updates.³⁶ Since 1970, PG&E captured leak repair data from A Forms in electronic databases,³⁷ and SED has presented no evidence to suggest that this procedure was not followed. PG&E is currently undertaking efforts to analyze this electronic A Form data to identify any potential unmapped plastic inserts.³⁸ This type of practical analytics will yield far more dividends in improving PG&E's distribution safety than SED's broad directive.</p> <p><u>GSRs:</u> PG&E completed scanning more than 6 million of its paper GSR records by 2015. The Company is in the process of uploading and entering these scanned GSRs into GD GIS so that they will be accessible electronically. Once the data has been entered into GD GIS, PG&E believes it could leverage analytic tools to identify potential missing GSRs, if any.</p>	

³⁵ PG&E OB at A-2; Ex. 4 at 2-11:7-9 (PG&E Reply Testimony, Singh).

³⁶ PG&E OB at 25-26, A-1; 1/21/16 Tr. at 412:7 to 413:5 (PG&E/Trevino).

³⁷ 1/21/16 Tr. at 468:24 to 469:10 (PG&E/Singh).

³⁸ PG&E OB at 25-26; Ex. 4 at 4-15:18 to 4-16:17 (PG&E Reply Testimony, Trevino); *id.* at 5-11:17-24 (PG&E Reply Testimony, Singh).

SED'S PROPOSED REMEDIES²⁷

Proposed Remedial Measure	PG&E's Response	PG&E's Alternative Proposal
<p>b. <u>Report on Systemic Review:</u> Within 90 days of a final Commission decision in this matter, PG&E should file a report based on a systemic review of its distribution system to ensure that all of its facilities are accounted for. PG&E should leverage information gathered from its field personnel and various sources, such as its Corrective Action Program (CAP), to determine any negative trends that impact the completeness and accuracy of its records and maps.</p>	<p>This proposed remedy is exceedingly broad as it seeks a systemic review to ensure that <i>all</i> of these facilities are accounted for, and to do so within 90 days of final Commission decision. No operator can prove with certainty—aside from taking extreme actions, such as digging up every inch of underground assets—that it has accounted for each and every facility. SED's own expert, PWA, acknowledges that no operator has been able to do so.³⁹</p> <p>This proposed remedy also does not consider the fact that PG&E has implemented numerous initiatives to continuously improve its records consistent with regulatory requirements.⁴⁰ PG&E is also continuously improving its damage prevention program and L&M personnel have many means to locate; they do not rely solely on maps.⁴¹</p> <p>As discussed in response to proposed remedy (a), this type of blanket directive is far less effective in improving safety than measures—like the Recommendations proposed by PWA or SED's Proposed Remedies (d), (e), (g), and (h)—that directly address the issues raised in this proceeding. It would take away focus from other critical work that is more effective at risk reduction. Thus, PG&E respectfully disagrees with this remedy as drafted.</p>	<p>PG&E shall:</p> <p>(1) Complete the planned effort to compare existing PG&E meter data in CC&B to GD GIS, along with relevant ancillary data such as aerial imagery, where appropriate, by December 30, 2016. PG&E will subsequently update GD GIS, as required.</p> <p>(2) Conduct a trending analysis of CAP mapping correction notifications to determine any potential trends in the submission of the type of map updates between October 2013 and the time of a Commission decision. PG&E shall file a report on the trending analysis within 90 days of a Commission decision.</p>

³⁹ 1/19/16 Tr. at 44:5-15 (SED/PWA) (“I don’t know a pipeline operator who has perfect maps and records.”).

⁴⁰ PG&E OB at A-1 to A-2 (listing records-related initiatives undertaken by PG&E).

⁴¹ Ex. 4 at 3-10:21 to 3-20:3 (PG&E Reply Testimony, Higgins).

SED'S PROPOSED REMEDIES²⁷

Proposed Remedial Measure	PG&E's Response	PG&E's Alternative Proposal
(continued)	<p>PG&E proposes the following alternative, specific remedies that continue to improve its gas distribution records:</p> <p><u>Comparing CC&B to GD GIS:</u> PG&E has already implemented measures to identify potential missing services. For example, as part of the process of validating its gas distribution asset data, PG&E compared its distribution asset maps in MET with the customer meter locations included in its Customer Care Billing System (CC&B) to identify assets not included on its maps.⁴² This effort was completed in 2013.⁴³ PWA recognized this as a best practice.⁴⁴</p> <p>PG&E is undertaking an additional effort to compare CC&B to GD GIS. A cross-check of these databases against each other verifies that customer premises have corresponding mapped services and mains within GD GIS.⁴⁵</p> <p><u>Trending Analysis:</u> PG&E agrees to conduct a trending analysis of CAP mapping correction notifications to determine any potential trends in the submission of the type of map updates between October 2013 and the time of a Commission decision. PG&E shall file a report on the trending analysis within 90 days of a Commission decision.</p>	

⁴² PG&E OB at 20, A-1; Ex. 4 at 2-20:21 to 2-21:3 (PG&E Reply Testimony, Singh); *id.* at 4-21:4-12 (PG&E Reply Testimony, Trevino).

⁴³ Ex. 4 at 4-21:11-12 (PG&E Reply Testimony, Trevino).

⁴⁴ Ex. 1 at 61 tbl.9 (PWA Report).

⁴⁵ Ex. 4 at 4-21:13-20 (PG&E Reply Testimony, Trevino).

SED'S PROPOSED REMEDIES²⁷

Proposed Remedial Measure	PG&E's Response	PG&E's Alternative Proposal
<p>c. <u>GIS Validation Review:</u> PG&E should conduct a review of its GD GIS system to validate the data using all available records to ensure completeness and accuracy of data in GD GIS. Within 90 days of a final Commission decision in this matter, PG&E should file a report presenting documentation of all aspects of this review.</p>	<p>PG&E respectfully disagrees with this proposed remedy because it is overly broad, redundant to SED's Proposed Remedy (a), and is redundant of the extensive efforts the Company has already undertaken to digitize its distribution records.</p> <p>Among many other things, this remedy could be interpreted to require a manual comparison of tens of millions of distribution records to GD GIS data to confirm that the information is correct in GD GIS. It would take away focus from other critical work that is more effective at risk reduction. <i>See supra</i> PG&E Reply Brief pp. 51-52.</p> <p>Since 2012, PG&E has been transitioning to electronic-based records systems and has been digitizing its Gas Distribution paper records as part of the Pathfinder Project. PG&E began deploying GD GIS in some of its divisions by late 2013 and, by August 2015, PG&E finished implementing GD GIS in all of its 18 divisions.⁴⁶</p> <p>As part of this effort, PG&E embarked on a number of measures to validate the data imported into GD GIS, including: implementation of GD GIS in the Pathfinder Project; conducting PAR analysis to identify potential anomalies in the conversion to GD GIS; comparing GD GIS to CC&B and to Google Earth; using SAP to inventory assets and track mapping updates in GD GIS; comparing SAP leak data to GD GIS to identify potentially unmapped plastic inserts; and scanning and making paper gas service records and distribution as-built records accessible electronically.⁴⁷</p> <p>Additionally, PG&E is continuously looking for new ways to use analytic tools to analyze the data from its newly digitized data in GD GIS.⁴⁸</p> <p>PG&E provided extensive discovery and testimony on these efforts. Neither PWA nor SED has taken issue with any of these efforts. Nor has SED or PWA articulated any specific recommendations not already implemented by PG&E to validate its GD GIS records. In fact, PWA recognized many of these efforts as best practices.</p> <p>This proposed remedy is duplicative to PG&E's ongoing efforts and PG&E believes it therefore is unnecessary.</p>	<p>Duplicative of SED's Proposed Remedy (a) and is redundant of the Company's extensive ongoing efforts to digitize its distribution records.</p>

SED'S PROPOSED REMEDIES²⁷

Proposed Remedial Measure	PG&E's Response	PG&E's Alternative Proposal
d. Plastic Inserts: PG&E should evaluate the need for a proactive program to identify unknown plastic inserts in its distribution system. Within 90 days of a final Commission decision in this matter, PG&E should file a report describing the evaluation for program need, and the basis for why a proactive program is or is not needed. PG&E should also describe any additional measures it is taking to address the risk of unknown plastic inserts.	<p>PG&E agrees with this proposal.</p> <p>As provided throughout PG&E's testimony, PG&E has already implemented several initiatives to address unmapped plastic inserts.⁴⁹ For example, PG&E is comparing GD GIS to SAP leak data to identify potential unmapped plastic inserts, and uses CAP mapping correction notifications to detect evidence of potential unmapped stubs or inserts.⁵⁰ PG&E also has been actively investigating new advanced technologies for detecting such unmapped assets.⁵¹ See PG&E's Response to PWA's Recommendation 1 for a more detailed discussion of these backstop measures, <i>supra</i> p. C-1. These initiatives demonstrate that PG&E is taking a proactive approach to improve its maps and records. In addition, PG&E has agreed to conduct benchmarking analyses to identify industry best practices in addressing potential unmapped plastic inserts.⁵²</p> <p>PG&E further agrees to submit a report within 90 days of a final Commission decision in this proceeding.</p>	None.

⁴⁶ The amount of records involved in this project was massive, reaching nearly three times the height of the Empire State Building if the paper records were stacked vertically, and the effort required coordination among multiple departments and across all divisions of Gas Operations. Ex. 4 at 5-37:17-29 (PG&E Reply Testimony, Singh).

⁴⁷ PG&E OB at 18-20, A-1.

⁴⁸ *Id.* at 18-24; Ex. 4 at 4-16:18 to 4-17:4 (PG&E Reply Testimony, Trevino); *id.* at 5-25:14-26, 5-26:31 to 5-27:22 (PG&E Reply Testimony, Singh).

⁴⁹ Ex. 4 at 1-7 (PG&E Reply Testimony, Howe); *id.* at 2-20:3-18 (PG&E Reply Testimony, Singh); *id.* at 4-15:16 to 4-17:4 (PG&E Reply Testimony, Trevino); *id.* at 5-8:1 to 5-12:13 (PG&E Reply Testimony, Singh); *id.* at 6-15:26 to 6-16:8 (PG&E Reply Testimony, Thierry).

⁵⁰ PG&E OB at 18-26; Ex. 4 at 2-11:1-5, 2-20:3-13, 2-22:6-9 (PG&E Reply Testimony, Singh); *id.* at 4-15:16 to 4-17:4 (PG&E Reply Testimony, Trevino); *id.* at 5-11:17 to 5-12:13 (PG&E Reply Testimony, Singh).

⁵¹ For example, PG&E initiated an industry R&D project with the Gas Technology Institute in collaboration with other gas distribution system operators to investigate commercially available technologies to detect potential inserted plastic pipe in gas distribution steel lines. This project tested several possible detection methods in the laboratory, but none have proven feasible in the field. PG&E has also been supporting the efforts of a start-up company that is developing ultrasonic means that may identify potential plastic inserts, demonstrating PG&E's continued commitment to identifying and developing new technologies that further build upon PG&E's current methods and procedures. PG&E OB at 56; Ex. 4 at 5-11:25 to 5-12:13 (PG&E Reply Testimony, Singh).

⁵² Ex. 4 at 1-7 (PG&E Reply Testimony, Howe); *id.* at 6-15:26 to 6-16:8 (PG&E Reply Testimony, Thierry).

SED'S PROPOSED REMEDIES²⁷

Proposed Remedial Measure	PG&E's Response	PG&E's Alternative Proposal
e. <u>Stub Identification</u> : Within 90 days of a final Commission decision in this matter, PG&E should provide a report describing its policy of identification of stubs, and documenting a systemic effort to account for stubs.	PG&E agrees with this proposed remedy. <i>See also</i> PG&E's Response to PWA Recommendations #2, <i>supra</i> .	None.
f. <u>Excavation Damage Prevention</u> : PG&E should perform an analysis to determine causes of at-fault excavation damages of its distribution system. Within 90 days of a final Commission decision in this matter, PG&E should provide a report of its analysis, including measures to reduce the number of at-fault excavation damages caused by mapping and/or record inaccuracies in its gas distribution system.	<p>PG&E currently performs such an analysis on a monthly basis. PG&E will use the most recent six-month data from the time of the Commission decision for this analysis and will identify any additional potentially required measures to reduce at-fault dig-ins. It will submit a report within 90 days.</p> <p>PG&E accurately marked 99.98% of the excavation requests it worked on between January and September 2015. At-fault dig-ins due to incorrect maps and records constitute a fraction of 0.02% of total dig-ins because the 0.02% figure includes dig-ins that resulted from factors other than imperfect maps or records, such as changed field conditions, or locate and mark operational errors unrelated to records.⁵³</p> <p>PG&E is committed to ongoing efforts to improve its gas distribution records and believes it could work with the CPUC directly to create objective measures of its progress in these ongoing efforts.</p> <p>PG&E is piloting a dedicated locating team for hard-to-locate facilities. This team integrates several functions (its members can locate, perform GPS surveys, and perform digs when necessary) and is provided with specialized training and an additional locating tool. The pilot includes pot-holing to validate locations, installation of radio frequency identification where appropriate, and map update requests.</p>	<p>(1) PG&E shall perform an analysis to determine causes of at-fault excavation damages of its distribution system and identify measures to reduce at-fault dig-ins and shall use the most recent six-month data from the time of the Commission decision for this analysis and submit a report within 90 days.</p> <p>(2) Based on the results of the dedicated locating team pilot, PG&E shall equip, at a minimum, two "difficult to locate" crews to perform location of facilities when traditional methods are unsuccessful.</p>

⁵³ PG&E OB at 13.

SED'S PROPOSED REMEDIES²⁷

Proposed Remedial Measure	PG&E's Response	PG&E's Alternative Proposal
<p>g. <u>Distribution MAOP Identification:</u> Within 90 days of a final Commission decision in this matter, PG&E should identify all of the facilities in its distribution system in which PG&E applied its alternative method of using post-1970 leak survey records to establish the MAOP. PG&E should provide a final list of these systems with the following data, at a minimum:</p> <ul style="list-style-type: none"> • Distribution line number, name, or nomenclature used by PG&E to identify the system • Location of the system – City and PG&E Division responsible for operations and maintenance • Operating Pressure • MAOP • Date installed • Date placed in service • Strength test information – date tested, test pressure, and duration • Material type • Size • Length • Copy of record/document used to establish the MAOP. 	<p>PG&E agrees to this proposed remedy and proposes alternatives with respect to date installed, date placed in service, and strength test information. Regarding date placed in service, PG&E may have difficulty establishing that date for some systems, so proposes instead to substitute date installed in those instances. With respect to strength test information, distribution facilities are not strength tested and thus that information is not available. However, they are leak (or pressure) tested, except for pipe installed prior to the establishment of state and federal code requirements. In those cases, leak test information was not recorded in the as-built documentation and may not be available. In addition, 49 C.F.R. § 192.517 requires an operator to retain leak test records for pipelines operating below 100 p.s.i. for only five years. PG&E agrees to provide any available leak test information, where applicable and available.</p>	<p>(1) Within 90 days of a final Commission decision in this matter, PG&E shall identify its facilities in its distribution system in which PG&E applied its alternative method of using post-1970 leak survey records to establish the MAOP. PG&E shall provide a final list of these systems with the following data:</p> <ul style="list-style-type: none"> • Distribution line number, name, or nomenclature used by PG&E to identify the system • Location of the system – City and PG&E Division responsible for operations and maintenance • Operating Pressure • MAOP • Material type • Size • Length • Copy of record/document used to establish the MAOP. <p>PG&E shall also provide the date placed in service. Where date placed in service information is not readily available, it will provide the date installed. PG&E shall also provide, where available, leak test information.</p> <p>(2) Based on the results of the record review in item (1), PG&E shall take additional steps to verify MAOP, as required, including pressure testing.</p>

SED'S PROPOSED REMEDIES²⁷

Proposed Remedial Measure	PG&E's Response	PG&E's Alternative Proposal
<p>h. <u>Distribution MAOP Risk</u> <u>Analysis:</u> PG&E should conduct a risk analysis and demonstrate its basis to conclude that the method it used for setting MAOP on the approximately 243 distribution systems do not create any additional safety risk. Along with the final list indicated above, within 90 days of a final Commission decision in this matter, PG&E should provide a report to the Commission describing the risk analysis performed, conclusions from that analysis, and any proposed remedial measures. SED reserves the right to review PG&E's report and submit a recommendation to the Commission.</p>	<p>PG&E agrees to this remedy. PG&E has completed the MAOP risk analysis suggested in SED's proposed remedy (h) and proposes to update that analysis once PG&E has completed the MAOP review identified in SED (g).</p> <p>PG&E agrees to provide a supplemental report, as necessary, for any additional distributions systems identified in SED's Proposed Remedy (g).</p>	<p>PG&E shall provide a supplemental report, as necessary, for any additional distributions systems identified in SED's Proposed Remedy (g).</p>

CARMEL'S PROPOSED REMEDIES⁵⁴

Proposed Remedial Measure	PG&E's Response	Proposed Ruling
1. <u>Executive bonuses</u> : Executive bonuses should be tied to include safety goals. The Commission should order that PG&E propose an ambitious model to more closely link executive pay to safety goals and measures. The order should include that SED and Carmel work together to hire an executive compensation advisor to review and make recommendations to PG&E's proposal. PG&E should pay for the compensation advisor.	This proposed remedy is outside the scope of this proceeding. The relationship between executive compensation and PG&E's recordkeeping practices and resulting gas distribution system safety was not an issue raised in this proceeding. Moreover, the relationship between executive compensation and meeting safety goals is currently being addressed in other regulatory proceedings, such as PG&E's 2017 General Rate Case application, and should not be determined here. ⁵⁵ This remedy, therefore, should be rejected.	Reject.
2. <u>Safety and Leak Intervenor</u> : The Commission should order the creation and the endowment of a safety and gas leak intervenor. This would be similar to the role of TURN, but an intervenor focused solely on issues of public safety relating to gas pipelines and gas leaks. Such an intervenor needs to be an independent voice, outside of the CPUC.	This proposed remedy is outside the scope of this proceeding and should be rejected. <i>See supra</i> PG&E Reply Brief, pp. 57-58.	Reject.
3. <u>Safety and Leak Performance Incentives</u> : The Commission should order that PG&E's authorized potential rate of return on capital be increased if PG&E's safety and leak record exceeds industry average. Conversely, PG&E's authorized potential rate of return on capital should be reduced if PG&E's safety and leak record is less than industry average. PG&E's safety record should include an analysis of its response time to gas leaks. This does not mean when PG&E gets there, it means when PG&E fixes the problem. In order to do this effectively, the Commission will need to set industry standards for measuring safety and require all gas utilities in the state to measure and report using these standards.	The relationship between monetary performance incentives and safety metrics is outside the scope of this proceeding, and is not supported by any evidence presented in this proceeding. Such a remedy would also constitute ratemaking.	Reject.

⁵⁴ Carmel OB at 20-25.

⁵⁵ *See, e.g., Assigned Commissioner's Ruling and Scoping Memo, Application of Pac. Gas & Elec. Co. for Auth., Among Other Things, to Increase Rates and Charges for Elec. & Gas Serv. Effective on Jan. 1, 2017*, A. 15-09-001, at 7-8 (Dec. 1, 2015).

CARMEL'S PROPOSED REMEDIES⁵⁴

Proposed Remedial Measure	PG&E's Response	Proposed Ruling
<p>4. <u>Independent Review of PG&E's Safety Culture</u>: The Commission should order an independent review to analyze PG&E's business practices, policies, and corporate culture and how the utility prioritizes safety in its gas pipeline activities. PG&E's safety protocols may look great on paper, but the law requires safe implementation. Carmel takes issue with the Exponent and "Lloyd's of London" reports because they are purportedly "too cozy" with PG&E and their reports are too limited in scope or just scratch the surface of PG&E's practices. They are commissioned and paid for by PG&E, creating an inherent conflict of interest. It is the implementation that gets overlooked in Lloyds and Exponent's analyses. Carmel proposes that SED select the expert for an independent review to help keep them at arm's length with its subject. PG&E should be ordered to pay for the review.</p>	<p>PG&E's business practices, policies, and safety culture are currently being addressed in other regulatory proceedings, such as PG&E's 2017 General Rate Case application, and should not be determined here.⁵⁶ Carmel's assertion that Lloyd's Register and Exponent are "too cozy" with PG&E is without basis. <i>See supra</i> PG&E Reply Brief, pp. 56-57.</p> <p>This remedy, therefore, should be rejected.</p>	<p>Reject.</p>
<p>5. <u>Finding that PG&E Caused the Release of Methane Gas</u>: The Commission's decision should include a finding that PG&E caused methane, a greenhouse gas, to be released into the atmosphere as part of these six incidents and other leaks. Therefore, these are reportable events pursuant to the Global Warming Solutions Act of 2006. The Commission should confer with the California Air Resources Board about how to address such releases under the AB32 cap.</p>	<p>This proposed remedy is beyond the scope of this recordkeeping OII, and the broader issue is already being considered in the Commission's Order Instituting Rulemaking to Adopt Rules and Procedures Governing Commission-Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leakage Consistent With Senate Bill 1371 (R. 15-01-008). It raises for the first time an issue for which Carmel has provided no notice or evidence from which to conclude that any incidents discussed in this OII were reportable under the Global Warming Solutions Act.</p> <p>This remedy, therefore, should be rejected.</p>	<p>Reject.</p>

⁵⁶ *See, e.g., id.*

CARMEL'S PROPOSED REMEDIES⁵⁴

Proposed Remedial Measure	PG&E's Response	Proposed Ruling
<p>6. <u>Order Additional Safety Remedies:</u> The Commission should include in its decision the following binding commitments by PG&E with respect to improving safety in its communities:</p> <ul style="list-style-type: none"> • PG&E to immediately call 911 and otherwise engage first responders for any future, similar gas leaks like the one seen in Carmel; • PG&E to have necessary safety equipment on trucks doing work for any reasonably foreseeable accidents that could be caused by such work; and • PG&E to have relevant safety equipment on first responder trucks to remedy all but the most serious incidents. 	<p>Emergency response is beyond the scope of this proceeding and PG&E was not given notice of this issue so that evidence demonstrating PG&E's emergency response performance could be presented. PG&E paid a \$10.85 million fine in response to a citation alleging two violations related to the Carmel incident, for failing to equip its personnel with the tools necessary to stop the flow of gas and for failing to make the surrounding area safe despite signs of a possible leak.⁵⁷</p> <p>In any event, PG&E is already addressing emergency response concerns by developing enhanced work and emergency response procedures, including equipping all crews in the City of Carmel with emergency tools, providing first responder training, and piloting a new protocol for PG&E crews to work more closely with local first responders.⁵⁸</p> <p>This remedy, therefore, should be rejected.</p>	<p>Reject.</p>

⁵⁷ Resolution ALJ-323, *Resolves the Appeal of Pac. Gas & Elec. Co. from Citation ALJ-274 2014-11-001 Issued by the Safety & Enforcement Div.*, 2015 Cal. PUC LEXIS 757, at *1-2.

⁵⁸ See Letter from Kevin Knapp, PG&E Vice President of Transmission and Distribution Operations, to Elizaveta Malashenko, Deputy Director of SED at 2-3 (Sept, 8, 2014), available at <http://ci.carmel.ca.us/carmel/index.cfm/linkservid/F1FD02AB-3048-7B3D-C5189A2F6920D9BF>.

CARMEL'S PROPOSED REMEDIES⁵⁴

Proposed Remedial Measure	PG&E's Response	Proposed Ruling
<p>7. <u>Compensation to Carmel:</u> PG&E should be ordered to pay Carmel for its damages associated with the March 3, 2014 blast. Carmel suffered direct costs through its emergency response efforts, its remediation and repair costs, its administrative time and effort, and its consulting and legal costs. It has also suffered indirect costs through lost “opportunity costs.” The explosion also caused indirect costs by damaging Carmel’s “brand” as a quiet, tranquil coastal town; a house explosion is not attractive to investment and tourism. The community of Carmel has been damaged as a result of the explosion. The explosion caused neighbors anxiety and they suffered loss of sleep due to the fear of what other unknowns exist underground.</p>	<p>In the context of an OII, the California Public Utilities Code authorizes the Commission to order penalties, fines and restitution as well as equitable remedies, but not to order damages.⁵⁹ Indeed, Carmel has identified no precedent for the Commission to order direct compensation to a private party or municipality in an OII, and PG&E is aware of none.⁶⁰</p> <p>Carmel states that it will submit evidence of damages through a “separate, further briefing” at some unknown time, outside of the briefing schedule and testimony set in this proceeding.⁶¹</p> <p>Carmel’s request should be rejected.</p>	Reject.
<p>8. <u>Fines and Penalties Should Be Paid with Shareholder Money:</u> PG&E shareholders should pay these penalties rather than ratepayers.</p>	<p><i>See supra</i> PG&E Reply Brief, pp. 53-55.</p>	

⁵⁹ Compare Cal. Pub. Util. Code § 2106 (stating that “[a]n action to recover for . . . loss, damage, or injury [caused by a public utility] may be brought in any court of competent jurisdiction”) with Cal. Pub. Util. Code § 2107 (granting the Commission the power to impose a penalty on any public utility that fails to comply with a state law or Commission order) and D. 15-04-024, 2015 Cal. PUC LEXIS 230, at *45-46 (finding that although the Commission is empowered to impose remedies outside of those available under section 2107, such additional remedies are limited to those equitable in nature); *see also Order Instituting Rulemaking on Regulations Relating to Passenger Carriers, Ridesharing, and New Online-Enabled Transp. Servs.*, D. 16-01-014, 2016 Cal. PUC LEXIS 22, at *90 (stating that “[t]he Commission has broad authority to impose *finest and penalties* on persons subject to the Commission’s jurisdiction”) (emphasis added).

⁶⁰ Carmel incorrectly argues that because the Commission has “exclusive jurisdiction” over the safety of PG&E’s distribution system, this proceeding is the “proper venue” for Carmel’s damages claims. Carmel OB at 24. Although “the Legislature has granted *regulatory* power to the PUC over the safety of gas pipelines,” *S. Cal. Gas Co. v. City of Vernon*, 41 Cal. App. 4th 209, 217 (1995) (emphasis added), the Commission is empowered to seek “penalties due the State” for violations of law, Cal. Pub. Util. Code § 2101, which are generally paid to the State’s General Fund. *See* Cal. Pub. Util. Code § 2104.5.

⁶¹ Carmel OB at 24.

TURN'S PROPOSED REMEDIES⁶²

Proposed Remedial Measure	PG&E's Response	Proposed Ruling
1. <u>Transmission Recordkeeping OII Remedies (Transmission OII Remedies)</u> : The Commission should extend to gas distribution recordkeeping each of the 21 transmission recordkeeping remedies adopted by the Commission in D. 15-04-024 (see below). ⁶³	As discussed in details below, many of the Transmission OII Remedies have been implemented for gas distribution in the course of implementing for Gas Transmission, and many of those are complete. Many relate to the details of implementing a Records and Information Management program which is not an issue in the evidentiary record of this proceeding. ⁶⁴ Some of the remedies are clearly inapplicable to the gas distribution assets, such as those addressing salvaged pipe, which is not used in the gas distribution system. While a few of the remaining remedies relate exclusively to transmission, PG&E has adopted similar principles in its ongoing work to enhance gas distribution systems, processes, and procedures. <i>See Adopted Transmission Recordkeeping OII Remedies, infra pp. C-21 to C-36.</i>	Unnecessary.
2. <u>Plastic Inserts</u> : The Commission should order PG&E to undertake proactive and systematic efforts to identify and correct in its maps and records all unmapped or inaccurately mapped records of plastic inserts in its distribution system and order this work to be completed within three years.	PG&E is agreeing to SED's Proposed Remedy (d) to evaluate the need for a proactive program to identify unknown plastic inserts in its distribution system. TURN's proposed remedy is duplicative and unnecessary. <i>See PG&E's Response to SED's Proposed Remedy (d), supra p. C-11.</i>	Duplicative of SED's Proposed Remedy (d).
3. <u>Stubs</u> : The Commission should order PG&E to undertake proactive and systematic efforts to identify and correct its maps and records of all unmapped or inaccurately mapped stubs in its distribution system and order this work to be completed within three years.	PG&E is agreeing to SED's Proposed Remedy (e) to document a systemic effort to account for stubs. TURN's proposed remedy is duplicative and unnecessary. <i>See PG&E's Response to SED's Proposed Remedy (e), supra p. C-12.</i>	Duplicative of SED's Proposed Remedy (e).

⁶² TURN OB at App. A.

⁶³ *See Order Instituting Investigation on the Comm'n's Own Motion into the Operations & Practices of Pac. Gas & Elec. Co. to Determine Violations of Pub. Util. Code Section 451, Gen. Order 112, & Other Applicable Standards, Laws, Rules & Regulations in Connection with the San Bruno Explosion & Fire on Sept. 9, 2010*, D. 15-04-024, 2015 Cal. PUC LEXIS 230 (Transmission Recordkeeping OII), at *417-42.

⁶⁴ *Id.* at *430-37, (Remedies 1, 3, 4, 5, 7, 8, 9, 10, 11, 15, 17).

TURN'S PROPOSED REMEDIES⁶²

Proposed Remedial Measure	PG&E's Response	Proposed Ruling
4. MAOP: The Commission should order PG&E to take the necessary steps to establish MAOP in compliance with applicable law and, within 90 days, to submit a compliance plan for Commission approval, via a Tier 3 advice letter.	PG&E is agreeing to SED's Proposed Remedy (g) and (h) to address MAOP issues. <i>See</i> PG&E's Response to SED Proposed Remedies (g) and (h), <i>supra</i> p. C-13 to C-14. TURN's proposal is duplicative and TURN has provided no evidence in the record to support this alternative proposal.	Duplicative of SED's Proposed Remedies (g) and (h).
5. Remedies to Be Paid By Shareholders: The Commission should order that costs incurred by PG&E related to any remedies ordered in the proceeding be paid by PG&E's shareholders and not be recovered from ratepayers.	<i>See supra</i> PG&E Reply Brief pp. 53-55. ⁶⁵	

⁶⁵ *See also* Ex. 4 at 1-25:15 to 1-26:2 (PG&E Reply Testimony, Howe).

ADOPTED TRANSMISSION RECORDKEEPING OII REMEDIES PROPOSED BY CPSD⁶⁶

Proposed Remedial Measure	PG&E's Response	Status ⁶⁷	Proposed Ruling
<p>1. <u>Level 3 Information Maturity Score:</u> PG&E's gas transmission organization shall achieve at least a Level 3 information maturity score under the Generally Accepted Records Keeping Principles within three years.</p>	<p>PG&E's Gas Operations organization has already committed to using the Information Governance Maturity Model for records management developed by ARMA International to design a Gas RIM program in accordance with the recordkeeping and information management guidance in PAS 55 and ISO 55001.⁶⁸ As part of its efforts to achieve ARMA Level 3 maturity, in August 2015 PG&E began the electronic records portion of a multi-year records management initiative, with a focus on information controls and security.⁶⁹ The initiative is scheduled to be completed in 2018.</p>	<p><i>In Progress.</i> PG&E is implementing this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings.⁷⁰</p>	<p>Duplicative of remedies already ordered in the Transmission Recordkeeping OII proceeding.</p>

⁶⁶ See D. 15-04-024, 2015 Cal. PUC LEXIS 230, at *417-42. For a report on the status of the implementation of these remedies, see Pacific Gas and Electric Co.'s Compliance Plan for Remedies Ordered by D.15-04-024, *Order Instituting Investigation on the Comm'n's Own Motion into the Operations & Practices of Pac. Gas & Elec. Co. with Respect to Facilities Records for its Nat. Gas Transmission Sys. Pipelines*, I. 11-02-016 (June 8, 2013), available at <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M152/K482/152482664.PDF>.

⁶⁷ This column provides the status of the implementation of the remedy, to the extent that PG&E undertook activities consistent with the intent of the remedy or as such a remedy was applied to the gas distribution systems in the Transmission Recordkeeping OII. "In Progress" indicates that the remedy is being implemented or is ongoing as part of the Transmission Recordkeeping OII. "Completed" indicates that the remedy has been implemented as to distribution activities through the Transmission Recordkeeping OII or that PG&E has implemented measures to address the intent of the remedy as part of its ongoing efforts to improve its distribution records and distribution system safety.

⁶⁸ Ex. 4 at 2-8:1-4 (PG&E Reply Testimony, Singh).

⁶⁹ Ex. 5, Attachment W014 at W014.003 (PG&E's Response to SED Data Request No. 114).

⁷⁰ PG&E requested permission to remove forecast costs from PG&E's 2015 Gas Transmission and Storage (GT&S) Rate Case (*Application of Pac. Gas & Elec. Co. Proposing Cost of Serv. & Rates for Gas Transmission & Storage Services for the Period 2015-2017*, A. 13-12-012) to implement remedies associated with the Transmission Recordkeeping OII (*Order Instituting Investigation on the Comm'n's Own Motion into the Operations & Practices of Pac. Gas & Elec. Co. with Respect to Facilities Records for its Nat. Gas Transmission Sys. Pipelines*, I. 11-02-016). See 2015 GT&S Rate Case Hearing Ex. 137 (Supplemental Testimony with Errata – Remedies, Chapter 24: Impact of Remedies on GT&S Forecast), available at <http://pgera.azurewebsites.net/Regulation/ValidateDocAccess?docID=346551>; 2015 GT&S Rate Case Hearing Ex. 138 (Workpapers Errata (Clean) Supporting Chapter 24), available at <http://pgera.azurewebsites.net/Regulation/ValidateDocAccess?docID=346552>. PG&E's supplemental testimony in the 2017 General Rate Case (GRC) (*Application of Pac. Gas & Elec. Co. for Auth., Among Other Things, to Increase Rates & Charges for Elec. & Gas Service Effective on Jan. 1, 2017*, A. 15-09-001) discusses the forecast costs to implement the remedies that are included in PG&E's gas distribution revenues. See 2017 GRC Exhibit PG&E-14 (Impact of Gas Transmission Remedies on GRC Forecast and Update to Enterprise Records and Information Management Program), available at <http://pgera.azurewebsites.net/Regulation/ValidateDocAccess?docID=352511>; 2017 GRC Exhibit PG&E-14 (Workpapers Supporting Chapter 2: Impact of Gas Transmission Remedies on GRC Forecast), available at <http://pgera.azurewebsites.net/Regulation/ValidateDocAccess?docID=352489>.

ADOPTED TRANSMISSION RECORDKEEPING OII REMEDIES PROPOSED BY CPSD⁶⁶

Proposed Remedial Measure	PG&E's Response	Status⁶⁷	Proposed Ruling
2. Rejected by the Commission	N/A	N/A	N/A
<p>3. <u>Corporate Policy and Standard on Recordkeeping</u>: PG&E shall issue a corporate policy and standard that will:</p> <p>a. Communicate recordkeeping expectations that underlie its post-2010 Corporate Records and Information Management Policy and Standard for all departments and divisions across PG&E. These expectations shall be incorporated into procedures specific to meet the needs of every Line of Business.</p> <p>b. The Information Management and Compliance Department shall design a governance controls catalog for recordkeeping practices to assess compliance with the corporate policy and standard, consistency of behavior with official records being stored in approved systems of record, and timeliness of addressing records during their lifecycle.</p> <p>c. The retention schedule will support the policy by providing retention length for all identified official records to meet legal and regulatory mandates.</p>	<p>While PWA testified that any violations in this OII were not the result of defective procedures⁷¹ and thus are not an issue in this proceeding, PG&E is already meeting this proposed remedy through its RIM program, and has provided SED with its current and updated RIM and record retention policies.⁷²</p>	<p><i>In Progress.</i> PG&E is implementing this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding.</p> <p>PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.</p>	<p>Duplicative of remedies already ordered in the Transmission Recordkeeping OII proceeding.</p>

PG&E committed to removing the costs described in the 2017 GRC supplemental testimony from the forecast once the Commission issues its decision in the 2015 GT&S Rate Case, as the adjustment is dependent on a Commission decision in the GT&S rate case regarding the recommendation by TURN that all costs to implement the remedies should be taken out of gas transmission revenues only.

⁷¹ Ex. 1 at 1:22-23 (PWA Report).

⁷² *Id.* at 84 attach. B (PWA Report) (describing PG&E's Response to SED Data Request No. 2); Ex. 4 at 2-5:18 to 2-6:2; *see, e.g.*, Ex. 5, Attachment W010 (Utility Standard TD-4016S, Rev. 1, Gas Operations Records and Information Management); *id.*, Attachment W011 (Utility Standard TD-4017S, Rev. 0, Gas Operations Vital Records Management).

ADOPTED TRANSMISSION RECORDKEEPING OII REMEDIES PROPOSED BY CPSD⁶⁶

Proposed Remedial Measure	PG&E's Response	Status ⁶⁷	Proposed Ruling
<p>4. <u>Education and Training Program:</u> PG&E shall develop and implement an education and training program for the gas transmission organization in Records and Information Management principles and practices within an information governance framework. The education and training program shall include the following:</p> <p>a. All staff shall be receive [sic] training to understand the responsibilities and tasks that relate to managing records. These education and training programs shall be updated and offered at regular intervals, at least twice annually, to include amendments to the records management program and for the benefit of new staff.</p> <p>b. There shall be specific and additional training for those staff involved directly in the management of retention and disposal of records. These education and training programs shall be offered at least annually.</p> <p>c. There shall be specific and additional training focusing on all of the recordkeeping systems used within the Gas Operations Organization. Employees and PG&E contractors who have duties using these programs shall be required to attend these training sessions. These education and training programs shall be offered at least annually.</p>	<p>In 2014, 98% of the Gas Operations workforce (consisting of about 5,000 employees) received RIM training, which included information about defining a record and a vital record, provided examples of the difference between a record and a non-record, and described electronic and paper records. In 2015, Gas Operations transitioned to an enterprise-deployed Information Governance training, which is an annual requirement for all employees. As of October 2015, 82% of Gas Operations employees had completed that training, and with the exception of 4% of the employees who were new to the gas organization, 96% of employees were trained by the year end. Consistent with the suggestion made in the PWA Report, Gas Operations plans to develop and implement a monitoring plan to evaluate the effectiveness of records-related trainings that are provided to employees.⁷³</p> <p>Further, to raise awareness about the RIM program and reinforce its importance to PG&E's work, each local headquarters office includes a RIM information board that identifies the local RIM coordinator, the link to the program's website, and information about the program. The Gas RIM team provides targeted training to the Gas RIM Coordinators and supports them as they coach field office employees in meeting their recordkeeping responsibilities and implementing the associated records requirements.⁷⁴</p>	<p><u>Completed.</u> PG&E has implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding.</p> <p>PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.</p>	<p>Duplicative of remedies already ordered in the Transmission Recordkeeping OII proceeding.</p>

⁷³ Ex. 4 at 2-6:16 to 2-7:2 (PG&E Reply Testimony, Singh).

ADOPTED TRANSMISSION RECORDKEEPING OIL REMEDIES PROPOSED BY CPSD⁶⁶

Proposed Remedial Measure	PG&E's Response	Status ⁶⁷	Proposed Ruling
<p>5. <u>Records Management Systems:</u> PG&E shall develop and deploy the systems necessary to manage, maintain, access, and preserve records (physical and electronic, in all formats and media types); their related data, metadata, and geographic location and geospatial content to the extent appropriate in accordance with legal and business mandated rules, utilizing technology that includes appropriate aids to help improve data and metadata quality.</p>	<p>PG&E has already implemented a number of technologies that meet the intent of this proposed remedy. These platforms enable PG&E to implement best practices for standardizing recordkeeping practices and improving its asset data.</p> <p>These platforms include GD GIS, which provides spatial information about distribution assets and attributes of assets (<i>e.g.</i>, size, type, and location), along with references to work orders and gas service record numbers.⁷⁵ PWA called PG&E's GD GIS system an "innovative practice."⁷⁶</p> <p>SAP includes an asset management database that contains equipment records, maintenance history and plans, gas leak data, preventive and corrective notifications, scheduling and cost collecting orders, material requisitions, warehouse management, financials, and cost accounting, as well as an inventory of data and maintenance plans related to regulation, valves, corrosion, leak survey, and instrument calibration for the gas distribution system. SAP also provides enhanced process control measures for monitoring the time to complete mapping after construction has been completed.⁷⁷ PWA praised the expanded use of SAP as a "positive technology addition."⁷⁸</p>	<p><u>Completed.</u> PG&E has already made significant progress in implementing these systems for distribution that address the goal intended by the remedy.</p>	<p>Unnecessary.</p>

⁷⁴ *Id.* at 2-7:20-27 (PG&E Reply Testimony, Singh).

⁷⁵ *Id.* at 2-11:25-29 (PG&E Reply Testimony, Singh).

⁷⁶ Ex. 1 at 59 (PWA Report).

⁷⁷ Ex. 4 at 2-14:9-24 (PG&E Reply Testimony, Singh); *id.* at 4-11:28 to 4-14:16 (PG&E Reply Testimony, Trevino).

⁷⁸ Ex. 1 at 56:3-5 (PWA Report).

ADOPTED TRANSMISSION RECORDKEEPING OIL REMEDIES PROPOSED BY CPSD⁶⁶

Proposed Remedial Measure	PG&E's Response	Status ⁶⁷	Proposed Ruling
<i>(continued)</i>	<p>Documentum serves as PG&E's primary electronic records depository, and stores both record content and record metadata (e.g., record creation date, author, editor, versions, format, and lifecycle status), with full-text search capabilities.⁷⁹</p> <p>The three systems interface with each other to provide information necessary to manage assets in real-time for prompt decision making, and can provide advanced analytic capabilities to improve the accuracy of asset data.⁸⁰ For example, PG&E can identify and correct GD GIS records by comparing leak repair information in SAP with its gas distribution maps.⁸¹</p>		
<p>6. <u>Senior Management Accountability</u>: PG&E shall establish accountability for development and implementation of a PG&E governance strategy across gas transmission that shall rest with PG&E Senior Management and a method of accountability shall be developed and implemented.</p>	<p>This proposed remedy does not relate to recordkeeping and is therefore outside the scope of this proceeding.</p>	<p><u>Completed</u>. PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding with the implementation of the Gas Operations Records and Information management structure and governance. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.</p>	<p>Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.</p>

⁷⁹ Ex. 4 at 2-14:30 to 2-15:23 (PG&E Reply Testimony, Singh).

⁸⁰ *Id.* at 2-15:31 to 2-16:17, 2-18:11-14 (PG&E Reply Testimony, Singh).

⁸¹ *Id.* at 2-20:4-6 (PG&E Reply Testimony, Singh).

ADOPTED TRANSMISSION RECORDKEEPING OII REMEDIES PROPOSED BY CPSD⁶⁶

Proposed Remedial Measure	PG&E's Response	Status⁶⁷	Proposed Ruling
7. <u>Employees for RIM:</u> PG&E shall identify and document the employees responsible for implementing the Records and Information Management program for gas transmission.	As of the third quarter of 2014, Gas RIM had eight full-time employees dedicated to the implementation and oversight of gas records management, with plans to add additional resources starting in 2016. Gas Operations has also established a Gas RIM Coordinator Network consisting of approximately 120 employees across its 152 field offices. RIM Coordinator responsibilities include functioning as subject matter experts for assigned locations, providing guidance and support to their offices, and work groups on management, protection, and control of records. ⁸²	<u>Completed.</u> PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.	Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.
8. <u>Consistent Standard Practices:</u> PG&E shall develop consistent standard practices that include gas transmission records management linked to corporate policies on information governance.	While PWA testified that any violations in this OII were not the result of defective procedures ⁸³ and thus are not at issue in this proceeding, PG&E sent copies of its updated RIM policies, standards and procedures to SED during discovery and their quality, completeness and usefulness was not raised by SED as an issue in this proceeding. ⁸⁴	<u>Completed.</u> PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.	Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.

⁸² *Id.* at 2-7:8-20 (PG&E Reply Testimony, Singh).

⁸³ Ex. 1 at 1:22-23 (PWA Report).

⁸⁴ *Id.* at 84 attch. B (PWA Report) (describing PG&E's Response to SED Data Request No. 2).

ADOPTED TRANSMISSION RECORDKEEPING OII REMEDIES PROPOSED BY CPSD⁶⁶

Proposed Remedial Measure	PG&E's Response	Status⁶⁷	Proposed Ruling
9. <u>Retention Periods</u> : PG&E shall implement mandated retention periods for all records relevant to gas transmission.	While PWA testified that any violations in this OII were not the result of defective procedures ⁸⁵ and thus are not at issue in this proceeding, PG&E has provided SED with its current and updated record retention policies. ⁸⁶ See PG&E's Response to Adopted Transmission Recordkeeping OII Remedy 8, <i>supra</i> p. C-26.	<i>Completed</i> . PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. See <i>supra</i> note 70.	Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.
10. <u>Standards to Conform with RIM Policies</u> : PG&E shall ensure that each gas transmission standard conforms with Records and Information Management (RIM) policies for gas transmission.	PWA testified that any violations in this OII were not the result of defective procedures ⁸⁷ and are therefore not at issue in this proceeding. Regardless, PG&E is already meeting this proposed remedy with regard to gas distribution through its development and implementation of its RIM program.	<i>In Progress</i> . PG&E is implementing this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. See <i>supra</i> note 70.	Duplicative of remedies already ordered in the Transmission Recordkeeping OII proceeding.

⁸⁵ *Id.* at 1:22-23 (PWA Report).

⁸⁶ *Id.* at 84 attach. B (PWA Report) (describing PG&E's Response to SED Data Request No. 2).

⁸⁷ *Id.* at 1:22-23 (PWA Report).

ADOPTED TRANSMISSION RECORDKEEPING OII REMEDIES PROPOSED BY CPSD⁶⁶

Proposed Remedial Measure	PG&E's Response	Status⁶⁷	Proposed Ruling
<p>11. <u>Treatment of Active and Inactive Records</u>: PG&E shall include the treatment of active and inactive records in its Records and Information Management (RIM) Policy for gas transmission.</p>	<p>PG&E is already meeting this proposed remedy with regard to gas distribution through its development and implementation of its RIM program.</p>	<p><i><u>In Progress</u></i>. PG&E is implementing this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding.</p> <p>PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.</p>	<p>Duplicative of remedies already ordered in the Transmission Recordkeeping OII proceeding.</p>
<p>12. <u>Traceable, Verifiable, and Complete Standard</u>: PG&E's records management processes shall be managed and maintained in accordance with the traceable, verifiable, and complete standard, including retention of physical and digital pipeline records for the "life of the asset."</p>	<p>PG&E implemented a process for distribution activities that addresses the goal intended by this remedy. The traceable, verifiable, and complete records standard is defined to include gas distribution records contained in PG&E's job files. PG&E's standard, Gas As-Built Packages, TD 4461S, defines job file, which includes the information necessary to validate MAOP. Moreover, PG&E's record retention schedule includes retention periods for the records contained in job files.</p> <p>The intent of this remedy has already been implemented by PG&E.</p>	<p><i><u>Completed</u></i>. PG&E has already implemented a process for distribution activities that addresses the goal intended by the remedy.</p>	<p>Unnecessary.</p>

ADOPTED TRANSMISSION RECORDKEEPING OIL REMEDIES PROPOSED BY CPSD⁶⁶

Proposed Remedial Measure	PG&E's Response	Status ⁶⁷	Proposed Ruling
<p>13. <u>Accuracy of Records:</u> The accuracy and completeness of data within gas transmission records shall be traceable, verifiable, and complete and when errors are discovered, the record shall be corrected as soon as correct information is available and the reason(s) for each change shall be documented and kept with the record.</p>	<p>PG&E has already implemented processes for distribution activities that address the goal intended by this remedy. PG&E has two processes to update as-builts or make changes to the records in the gas distribution GD GIS system to ensure accuracy and completeness.</p> <p>The first is in creating the as-built. As PG&E testified, it has implemented a number of process improvements to the process of creating and documenting as-builts.⁸⁸</p> <p>The second process is in Mapping corrections. As PG&E testified, PG&E upgraded and documented a new Map Correction procedure TD-4460P-11 "Gas Map Corrections," effective October 17, 2014.⁸⁹ This new process allows any PG&E employee to submit map corrections directly to mapping through CAP via a mobile application, web page, or directly into SAP. These are then tracked, completed by mapping, and closed. The record from the field (e.g., correction form or drawing) is stored within SAP under the CAP notification number.</p>	<p><u>Completed.</u> PG&E has already implemented processes for distribution activities that address the goal intended by the remedy.</p>	<p>Unnecessary.</p>

⁸⁸ Ex. 4 at 4-9:3-14 (PG&E Reply Testimony, Trevino); *id.* at 5-12:20 to 5-13:9 (PG&E Reply Testimony, Singh); *see* Ex. 5, Attachment W017 (TD-4461P-20-F01, Checklist for Distribution Mains and Services As-Built Packages); Ex. 7, Attachment W080 (TD-4461M, Rev. 0, As-Built Drawing Handbook).

⁸⁹ Ex. 4 at 4-5:22 to 4-6:15 (PG&E Reply Testimony, Trevino); *id.* at 5-22:22-28, 5-25:14-26 (PG&E Reply Testimony, Singh); *see* Ex. 6, Attachment W029 (Utility Procedure TD-4460P-11, Rev. 0, Gas Map Corrections).

ADOPTED TRANSMISSION RECORDKEEPING OII REMEDIES PROPOSED BY CPSD⁶⁶

Proposed Remedial Measure	PG&E's Response	Status ⁶⁷	Proposed Ruling
<p>14. <u>Standard Format for Job Files:</u> PG&E shall create a standard format for the organization of a job file so that PG&E personnel will know exactly where to look in a file folder, or set of file folders, to find each type of document associated with a job file. At a minimum, a job file will contain traceable, verifiable, and complete records to support the MAOP of the pipeline segment installed; design documentation; purchase documentation showing the sources and specifications of equipment purchased; permits; environmental documents; field notes; design, construction, and as-built drawings; x-ray reports and weld maps; pressure test records; correspondence with the CPUC; and inspection reports and correspondence.</p>	<p>PG&E has already implemented processes for distribution activities that address the goal intended by this remedy. <i>See supra</i> PG&E's Response to Adopted Transmission Recordkeeping OII Remedy 12.</p> <p>PG&E is agreeing to SED's Proposed Remedies (g) and (h) to address MAOP issues. <i>See</i> PG&E's Response to SED's Proposed Remedies (g) and (h), <i>supra</i> pp. C-13 to C-14.</p> <p>Finally, distribution job files, which do not require all of the same documentation (such as x-ray reports and weld maps), are currently accessed through SAP.</p>	<p><u>Completed.</u> PG&E has already implemented processes for distribution activities that address the goal intended by the remedy. <i>See also</i> PG&E's Response to SED's Proposed Remedies (g) and (h), <i>supra</i> pp. C-13 to C-14.</p>	<p>Unnecessary.</p>
<p>15. <u>Job File Data To Be Immediately Accessible:</u> Job file data, including drawings, for all parts of the active PG&E gas transmission system shall be immediately accessible from multiple locations. The development of a complete and accurate catalog of job files that can be searched immediately shall be included within this objective.</p>	<p>PG&E has already implemented processes for distribution activities that address the goal intended by this remedy. <i>See supra</i> PG&E's Response to Adopted Transmission Recordkeeping OII Remedy 12, <i>supra</i> p. C-28.</p> <p>Distribution job file information is accessed electronically through SAP.</p>	<p><u>Completed.</u> PG&E has already implemented processes for distribution activities that address the goal intended by the remedy.</p>	<p>Unnecessary.</p>

ADOPTED TRANSMISSION RECORDKEEPING OIL REMEDIES PROPOSED BY CPSD⁶⁶

Proposed Remedial Measure	PG&E's Response	Status ⁶⁷	Proposed Ruling
<p>16. Missing Records: The information that was contained in PG&E's historic records and documents, and that has been identified as "missing or disposed of," and is necessary to be retained for the safe operation of the pipelines, pursuant to laws, regulations and standards, and the PG&E retention schedule, shall be recovered. This recovery shall include but not be limited to:</p> <ul style="list-style-type: none"> a. updating and verification of data in engineering databases, such as the leak database, GIS, and the integrity management model, b. updating plat sheets and other engineering drawings, and c. updating and organizing job files. <p>When PG&E cannot locate records, it may apply conservative assumptions consistent with the requirements of Ordering Paragraph 1 of D. 11-06-017. PG&E shall be required to fully document any engineering-based assumptions it makes for data that has been identified as "missing or disposed of." Such assumptions must be clearly identified and justified and, where ambiguities arise, the assumption allowing the greatest safety margin must be adopted.</p>	<p>PG&E's responses to SED's Proposed Remedies (a)–(e) address the recordkeeping issues raised in this proceeding. Moreover, PG&E's gas plat sheets are now updated in GD GIS and distribution job files are maintained in SAP. <i>See</i> PG&E's Responses to SED's Proposed Remedies (a) and (c), <i>supra</i> pp. C-5 to C-7, C-10, and PG&E's Responses to Adopted Transmission Recordkeeping OII Remedies (5), (14), and (15), <i>supra</i> pp. C-24 to C-25, C-30. Thus, this remedy is duplicative to those proposed remedies.</p>	<p><i>In Progress.</i> <i>See</i> PG&E's responses to SED's Proposed Remedies (a)–(e), <i>supra</i> pp. C-5 to C-12.</p>	<p>Inapplicable to distribution assets and duplicative of PG&E's Responses to SED's Proposed Remedies (a)–(e).</p>

ADOPTED TRANSMISSION RECORDKEEPING OII REMEDIES PROPOSED BY CPSD⁶⁶

Proposed Remedial Measure	PG&E's Response	Status ⁶⁷	Proposed Ruling
<p>17. <u>Document Changes to Policies, Standards, and Procedures:</u> PG&E shall document adoption of, and changes and amendments to, policies, standards and procedures within the Gas Operations Organization (or its successor division(s) with responsibility for design, construction, operations, maintenance, testing, safety, and integrity management of PG&E's natural gas pipeline system). The documentation shall include the reasons for adoption, amendment, or cancellation of the policies, standards, and procedures. An audit trail of changes shall be maintained and retained for as long as the standard is in effect. If a policy, standard, or procedure is cancelled, a copy of the policy, standard or procedure in effect at the time of cancellation, as well as the reason for its cancellation, shall be preserved permanently, taking heed of potential changes in technology that may render documents unreadable in the future.</p>	<p>While PWA testified that any violations in this OII were not the result of defective procedures⁹⁰ and thus are not at issue in this proceeding, PG&E already currently tracks and maintains changes to policies and procedures.</p>	<p><u>Completed.</u> PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding.</p> <p>PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.</p>	<p>Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.</p>

⁹⁰ Ex. 1 at 1:22-23 (PWA Report).

ADOPTED TRANSMISSION RECORDKEEPING OIL REMEDIES PROPOSED BY CPSD⁶⁶

Proposed Remedial Measure	PG&E's Response	Status ⁶⁷	Proposed Ruling
<p>18. <u>Identification of Salvaged and Reused Pipes</u>: PG&E will identify each section of pipe that has been salvaged and reused within the PG&E gas transmission system. For each section of pipe identified, PG&E will change the installed date in its GIS and its IM model to the date the pipe was originally installed in the PG&E pipeline system.</p>	<p>PG&E does not use salvaged pipe in its Gas Distribution system. This proposed remedy is therefore inapplicable to this proceeding.</p>	<p><u>N/A</u></p>	<p>Inapplicable to gas distribution.</p>

ADOPTED TRANSMISSION RECORDKEEPING OIL REMEDIES PROPOSED BY CPSD⁶⁶

Proposed Remedial Measure	PG&E's Response	Status ⁶⁷	Proposed Ruling
<p>19. Rejected. TURN proposed remedy 1 adopted instead:</p> <p><u>TURN Proposed Remedy 1 – Centralized Database to Track Re-Used Pipes:</u> PG&E shall create a centralized database to track where it has placed reused or otherwise reconditioned pipe in its system. For each such segment, the database should show the date of manufacture of the segment, if known. If this date is unknown, the database should so indicate, to ensure that the segment is given appropriate attention in integrity management. The database should include a link to reliable and readily accessible documentation showing, for each reused or otherwise reconditioned pipe segment, that all steps necessary to prepare the segment for installation were performed and inspected. If such documentation is unavailable, the centralized documentation should so indicate so that the segment will be given appropriate attention in integrity management. PG&E will maintain this database so long as there are sections of reused pipe in the PG&E operating gas transmission pipeline system.</p>	<p>PG&E does not use salvaged pipe in its Gas Distribution system, and therefore, this proposed remedy is inapplicable to this proceeding.</p>	<p><u>N/A</u></p>	<p>Inapplicable to gas distribution.</p>

ADOPTED TRANSMISSION RECORDKEEPING OIL REMEDIES PROPOSED BY CPSD⁶⁶

Proposed Remedial Measure	PG&E's Response	Status ⁶⁷	Proposed Ruling
<p>20. <u>PwC Recommendations:</u> PG&E shall implement the recommendations included in the final PricewaterhouseCoopers (PwC) audit report. (TURN Exhibit 16, Appendix B).</p>	<p>The PwC report is dated March 31, 2012, and many of its recommendations have been implemented as ordered in the Gas Transmission Records OIL. Ordering these recommendations again is duplicative. Others, while still implemented, are not germane to the disputed issues in this case. Two of the recommendations, C.1 and C.2, relate to ongoing RIM training and are appropriate in this context, but duplicative because already ordered and in progress as a result of the Transmission Recordkeeping OIL proceeding. The PwC recommendations, therefore, are duplicative, unnecessary, or not relevant to issues in this proceeding.</p> <p><i>See PG&E's Responses to PwC Recommendations, infra pp. C-37 to C-63.</i></p>	<p><i>See PwC Recommendations, infra pp. C-37 to C-63.</i></p>	<p><i>See PwC Recommendations, infra pp. C-37 to C-63.</i></p>
<p>21. <u>Audit of Recordkeeping Practices:</u> Using independent auditors, CPSD will undertake audits of PG&E's recordkeeping practices within the Gas Transmission Division on an annual basis for a minimum of 10 years after the final decision is issued in OIL. 11-02-016.</p>	<p>PG&E currently works with SED through SED's division audit process to identify and correct gas distribution deficiencies including those associated with records, and will continue to do so as the Commission directs.</p> <p>Additionally, PG&E uses a robust system of internal auditing, which is directly overseen by senior management, and which includes audits of recordkeeping practices.⁹¹</p> <p>PG&E has also made extensive use of independent auditors and experts, such as Lloyd's Register.⁹²</p> <p>PWA has commended PG&E's use of both internal and external audits.⁹³</p> <p>There has been no evidence presented in this proceeding that suggests a separate, independent auditor is necessary.</p>	<p><u>N/A</u></p>	<p>Unnecessary.</p>

⁹¹ Ex. 4 at 3-23:3-20 (PG&E Reply Testimony, Higgins).

⁹² *Id.* at 1-22:1-32 (PG&E Reply Testimony, Howe); *id.* at 2-8:13-16 (PG&E Reply Testimony, Singh).

⁹³ Ex. 1 at 69:3-4, 75:1-6 (PWA Report).

ADOPTED TRANSMISSION RECORDKEEPING OII REMEDIES PROPOSED BY CPSD⁶⁶

Proposed Remedial Measure	PG&E's Response	Status ⁶⁷	Proposed Ruling
<p>22. <u>Correct Deficiencies Identified From Audits:</u> PG&E will correct deficiencies in recordkeeping discovered as a result of each CPSD audit and will report to CPSD when such deficiencies have been corrected.</p>	<p>See PG&E's Response to Adopted Transmission Recordkeeping OII Remedy 21, <i>supra</i> p. C-35.</p>	<p><u>N/A</u></p>	<p>Unnecessary.</p>

PRICEWATERHOUSECOOPERS RECOMMENDATIONS IN TRANSMISSION RECORDKEEPING OII⁹⁴

Proposed Remedial Measure	PG&E's Response	Status⁹⁵	Proposed Ruling
A.1. <u>RIM Program</u> : Seek commitment to be a gas utility with a leading RIM program by highlighting benefits and declaring the objectives with tangible milestones such as industry awards and presenting at industry conferences on RIM initiatives.	PG&E's Gas Operations organization has already committed to using the Information Governance Maturity Model for records management developed by ARMA International to design a Gas RIM program in accordance with the recordkeeping and information management guidance in PAS 55 and ISO 55001. ⁹⁶ As part of its efforts to achieve ARMA Level 3 maturity, in August 2015 PG&E began the electronic records portion of a multi-year records management initiative, with a focus on information controls and security. ⁹⁷ The initiative is scheduled to be completed in 2018.	<i>In Progress</i> . PG&E is implementing this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. Thus, this remedy is duplicative. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.	Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.
A.2. <u>RIM Program</u> : Strive to be a gas utility with a top RIM program by leveraging leading practices from within gas and other industries.	<i>See</i> PG&E's Response to PwC Recommendation A.1, <i>supra</i> .	<i>See</i> PG&E's Response to PwC Recommendation A.1, <i>supra</i> .	Duplicative of remedies already ordered in the Transmission Recordkeeping OII proceeding.

⁹⁴ For a report on the status of the implementation of these remedies, see Pacific Gas and Electric Co.'s Compliance Plan for Remedies Ordered by D.15-04-024, *Order Instituting Investigation on the Comm'n's Own Motion into the Operations & Practices of Pac. Gas & Elec. Co. with Respect to Facilities Records for its Nat. Gas Transmission Sys. Pipelines*, I. 11-02-016 (June 8, 2013), available at <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M152/K482/152482664.PDF>.

⁹⁵ This column provides the status of the implementation of the remedy, to the extent that PG&E undertook activities consistent with the intent of the remedy or as such a remedy was applied to the gas distribution systems in the GT Records OII. "In Progress" indicates that the remedy is being implemented or is ongoing as part of the GT Records OII. "Completed" indicates that the remedy has been implemented as to distribution activities through the Transmission Recordkeeping OII or that PG&E has implemented measures to address the intent of the remedy as part of its ongoing efforts to improve its distribution records and distribution system safety.

⁹⁶ Ex. 4 at 2-8:1-4 (PG&E Reply Testimony, Singh).

⁹⁷ Ex. 5, Attachment W014 at W014.003 (PG&E's Response to SED Data Request No. 114).

PRICEWATERHOUSECOOPERS RECOMMENDATIONS IN TRANSMISSION RECORDKEEPING OII⁹⁴

Proposed Remedial Measure	PG&E's Response	Status⁹⁵	Proposed Ruling
A.3. <u>RIM Program</u> : Leverage the RIM Principles and the attributes of RIM Maturity to devise a Gas RIM strategy that seeks to move the Gas organization to a higher maturity level.	<i>See supra</i> PG&E's Response to PwC Recommendation A.1, <i>supra</i> p. C-37.	<i>See supra</i> Response to PwC Recommendation A.1, <i>supra</i> p. C-37.	Duplicative of remedies already ordered in the Transmission Recordkeeping OII proceeding.
B.1. <u>Corporate Records Management</u> : Align with Corporate Records Management Policy and Retention Schedule; at a minimum including Legal (with possible Outside Counsel review) Corporate Secretary, and Corporate Information Governance Council.	While PWA testified that any violations in this OII were not the result of defective procedures ⁹⁸ and thus are not an issue in this proceeding, PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding.	<u>Completed</u> . PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.	Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.
B.2. <u>Gas Governance Structure</u> : Create Gas Governance Structure, including Gas Information Governance Council, Gas Steering Committee, Gas RIM Director Role, Regional/Business Unit Managers, and Coordinators	The gas governance structure is not an issue in this proceeding.	<u>Completed</u> . PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.	Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.

⁹⁸ Ex. 1 at 1:22-23 (PWA Report).

PRICEWATERHOUSECOOPERS RECOMMENDATIONS IN TRANSMISSION RECORDKEEPING OII⁹⁴

Proposed Remedial Measure	PG&E's Response	Status⁹⁵	Proposed Ruling
B.3. <u>RIM Project Plan</u> : Gas RIM Director/Council should create and own the RIM Project Plan/PMO and track progress, challenges, milestones reached, and evaluate necessary changes to plan and timelines, etc.	The role of the RIM director is not an issue in this proceeding.	<i>Completed.</i> PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.	Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.
B.4. <u>Gas Compliance Organization</u> : Consider creating a formal Gas Compliance organization leveraging the existing “Standards and Policies” function.	Creation of a Gas Compliance organization is not an issue in this proceeding.	<i>Completed.</i> PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.	Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.
B.5. <u>Retention Schedules</u> : Consolidate and update Retention Schedules. Retention schedule to apply to all content regardless of storage medium (<i>e.g.</i> , database, paper files, image system, microfiche, backup tape, etc.)	Retention schedules are not an issue in this proceeding.	<i>Completed.</i> PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.	Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.

PRICEWATERHOUSECOOPERS RECOMMENDATIONS IN TRANSMISSION RECORDKEEPING OII⁹⁴

Proposed Remedial Measure	PG&E's Response	Status⁹⁵	Proposed Ruling
<p>B.6. <u>Corporate Records Management Policy</u>: Update/Enhance Corporate Records Management Policy.</p>	<p>The Corporate Records Management Policy is not an issue in this proceeding.</p>	<p><i>Completed.</i> PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.</p>	<p>Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.</p>
<p>B.7. <u>Corporate Records Management Policy and Retention Schedule</u>: Embed the Corporate Records Management Policy and the Retention Schedule within each Gas function.</p>	<p>The Corporate Records Management Policy and the Retention Schedule are not an issue in this proceeding.</p>	<p><i>Completed.</i> PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.</p>	<p>Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.</p>

PRICEWATERHOUSECOOPERS RECOMMENDATIONS IN TRANSMISSION RECORDKEEPING OII⁹⁴

Proposed Remedial Measure	PG&E's Response	Status⁹⁵	Proposed Ruling
C.1. <u>RIM Training:</u> Provide RIM training to all Gas Operations employees.	In 2014, 98% of the Gas Operations workforce (consisting of about 5,000 employees) received RIM training, which included information about defining a record and a vital record, providing examples of the difference between a record and a non-record, and describing electronic and paper records. In 2015, Gas Operations transitioned to an enterprise-deployed Information Governance training, which is an annual requirement for all employees. As of October 2015, 82% of Gas Operations employees had completed that training, and with the exception of 4% of employees who were new to the gas organization, 96% of the remaining Gas Operations employees were trained by the end of the year. Consistent with the suggestion made in the PWA Report, Gas Operations already has plans in place to develop and implement a monitoring plan to evaluate the effectiveness of records-related trainings that are provided to employees. ⁹⁹	<i>Completed.</i> PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.	Duplicative of remedies already ordered in the Transmission Recordkeeping OII proceeding.
C.2. <u>Gas Operations Training:</u> Create a holistic Gas Operations learning curriculum that provides timely, job-specific, technical, and soft-skills training, and includes RIM concepts and principles.	RIM concepts and principles were incorporated into Gas Operations courses as part of the Gas Operations curriculum training development strategy. ¹⁰⁰	<i>Completed.</i> PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.	Duplicative of remedies already ordered in the Transmission Recordkeeping OII proceeding.

⁹⁹ Ex. 4 at 2-6:16 to 2-7:2 (PG&E Reply Testimony, Singh).

¹⁰⁰ Pacific Gas and Electric Co.'s Compliance Plan for Remedies Ordered by D.15-04-024, *Order Instituting Investigation on the Comm'n's Own Motion into the Operations & Practices of Pac. Gas & Elec. Co. with Respect to Facilities Records for its Nat. Gas Transmission Sys. Pipelines*, I. 11-02-016, at 89 (June 8, 2013), available at <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M152/K482/152482664.PDF>

PRICEWATERHOUSECOOPERS RECOMMENDATIONS IN TRANSMISSION RECORDKEEPING OII⁹⁴

Proposed Remedial Measure	PG&E's Response	Status⁹⁵	Proposed Ruling
C.3. <u>Additional Training</u> : After initial RIM training courses are conducted, identify functions and/or individuals that require additional Change Management and training assistance.	Change Management training is not an issue in this proceeding.	<i>In Progress.</i> PG&E is implementing this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.	Duplicative of remedies already ordered in the Transmission Recordkeeping OII proceeding.
C.4. <u>Gas RIM Program Communication Plan</u> : Develop and execute a Gas RIM Program Communications plan to enhance and sustain executive support for the RIM initiative, and educate all employees on the importance of an effective RIM program.	The Gas RIM Program Communication plan is not an issue in this proceeding.	<i>Completed.</i> PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.	Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.
C.5. <u>"A Day in the Field" Visits</u> : Promote cross-level camaraderie and knowledge sharing by having leadership conduct "a day in the field" visits at least once a year, and observe the work, including the RIM-related practices.	The need for cross-level camaraderie is not an issue in this proceeding.	<i>Completed.</i> PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. There were no incremental costs to apply this to distribution activities.	Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.

PRICEWATERHOUSECOOPERS RECOMMENDATIONS IN TRANSMISSION RECORDKEEPING OII⁹⁴

Proposed Remedial Measure	PG&E's Response	Status⁹⁵	Proposed Ruling
C.6. <u>Additional Resources:</u> Identify additional resources (internal or external) with appropriate skill sets and experience to work at direction of identified PG&E resources with Quality Control and Vendor Management expertise. Leverage resources execute on planned temporary or interim activities to resolve any backlog of work (filing, mapping, other functions as deemed appropriate), and to help prep and organize records at locations in advance of larger digitization efforts.	PG&E is already addressing this remedy through its implementation of the RIM program.	<i>In Progress.</i> PG&E is implementing this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.	Duplicative of remedies already ordered in the Transmission Recordkeeping OII proceeding.
C.7. <u>Cross-Functional Teamwork:</u> Promote Cross-Functional Teamwork to improve processes, including data accuracy and quality.	The need for cross-functional teamwork is not an issue in this proceeding.	<i>Completed.</i> PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. There were no incremental costs to apply this to distribution activities.	Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.

PRICEWATERHOUSECOOPERS RECOMMENDATIONS IN TRANSMISSION RECORDKEEPING OII⁹⁴

Proposed Remedial Measure	PG&E's Response	Status⁹⁵	Proposed Ruling
C.8. <u>Employee Feedback and Incentives:</u> Solicit, evaluate and respond to feedback from employees. Provide incentives to employees for generating cost savings and other innovative ideas, without compromising quality.	The need for employee feedback and incentives is not an issue in this proceeding.	<i>Completed.</i> PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.	Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.
C.9. <u>Gas Employee of the Month:</u> Consider creating a “Gas Employee of the Month” program to highlight employees who have demonstrated positive impact to RIM culture.	The need to highlight employee impact on RIM culture is not an issue in this proceeding.	<i>Completed.</i> PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. There were no incremental costs to apply this to distribution activities.	Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.
C.10. <u>Gas Records Management Day:</u> Consider creating a “Gas Records Management Day” to promote and get employees involved in various RIM activities. Leverage as an employee morale event/teaming event/training.	Employee engagement in RIM activities is not an issue in this proceeding.	<i>Completed.</i> PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.	Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.

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Proposed Remedial Measure	PG&E's Response	Status⁹⁵	Proposed Ruling
C.11. <u>Consolidating Gas Distribution Mappers:</u> Consider consolidating Gas Distribution Mappers to centralized location to facilitate consistency and controls. Retain 1-2 local field resources for local requests and M&C assistance.	PG&E provided testimony in this proceeding on the structure of its Mapping organization, which has been significantly consolidated. ¹⁰¹ None of the parties raised any issues on the remaining distributed mapping workforce. No evidence was presented to suggest that the current practice is not operating well or that a change at this time would “facilitate consistency and controls.”	<u>Completed.</u>	Duplicative of actions PG&E has taken regarding its gas distribution mapping function.
C.12. <u>Success Criteria and Metrics:</u> Develop appropriate success criteria, and appropriate metrics with quality aspect. Leverage the metrics in a positive light to promote progress and achievements. Recognize employee contributions to support the organization's goals as it relates to RIM principles and initiatives.	Employee recognition is not an issue in this proceeding.	<u>Completed.</u> PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.	Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.
D.1. <u>Standard on Metrics:</u> Create a Standard that indicates that all reporting metrics must include a Quality component, or a footnote as to the method in which the quality of the metrics was supported/confirmed.	PWA testified that any violations in this OII were not the result of defective procedures ¹⁰² and thus are not an issue in this proceeding.	<u>In Progress.</u> PG&E is implementing this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.	Duplicative of remedies already ordered in the Transmission Recordkeeping OII proceeding.

¹⁰¹ Ex. 4 at 4-3:1 to 4-4:18 (PG&E Reply Testimony, Trevino).

¹⁰² Ex. 1 at 1:22-23 (PWA Report).

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Proposed Remedial Measure	PG&E's Response	Status ⁹⁵	Proposed Ruling
<p>D.2. <u>RIM Issues Reporting:</u> Create a requirement and protocol for reporting any potential systemic data quality or RIM issues to immediate Supervisor and Gas RIM Director.</p>	<p>PG&E's procedures go beyond this recommendation. PG&E's CAP program is used to identify, track, and resolve recordkeeping and other issues. Any PG&E employee can report any issue in CAP and the issue is assigned to the appropriate personnel. This ensures that the issues are assigned to the appropriate, responsible personnel, who may or may not be the RIM supervisor or director. None of the parties raised any issues about RIM reporting.</p>	<p><i>Completed.</i> PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.</p>	<p>Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.</p>
<p>D.3. <u>Employee Departure/Transfer Process/Procedure:</u> Review and update the process/procedure for Employee Departure/Transfer to ensure transition of Gas Records from employee custody or on hard drives/servers to corporate storage and management.</p>	<p>Employee departure and ensuing transfer of records is not an issue in this proceeding.</p>	<p><i>Completed.</i> PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. There were no incremental costs to apply this to distribution activities.</p>	<p>Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.</p>
<p>D.4. <u>Disposition Procedure:</u> Create a formal Disposition Procedure to address records eligible for disposition, including preservation obligations, approval for disposition, and appropriate disposition techniques.</p>	<p>Records disposition is not an issue in this proceeding.</p>	<p><i>Completed.</i> PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.</p>	<p>Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.</p>

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Proposed Remedial Measure	PG&E's Response	Status ⁹⁵	Proposed Ruling
<p>D.5. <u>Integrate RIM Controls:</u> Integrate RIM controls within Gas Operations business processes.</p>	<p>RIM controls were not raised as an issue in the evidentiary record of this proceeding. However, PG&E has made significant investment in its RIM program, as described in testimony.¹⁰³</p>	<p><i>In Progress.</i> PG&E is implementing this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.</p>	<p>Duplicative of remedies already ordered in the Transmission Recordkeeping OII proceeding.</p>

¹⁰³ Ex. 4 at 2-7:4 to 2-8:25 (PG&E Reply Testimony, Singh).

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Proposed Remedial Measure	PG&E's Response	Status ⁹⁵	Proposed Ruling
<p>D.6. <u>Guidelines for Storage of Physical Records:</u> Create formal guidelines for the storage of physical records, including temperature/moisture conditions, and consideration of fire-safe location for vital physical records.</p>	<p>PG&E has already published two standards that address this proposed remedy.</p> <p>First, PG&E recently published Gas Operations Records Information Management standard (TD-4016S),¹⁰⁴ which defines what a “record” is and sets forth general rules for the retention, storage, and disposal of both paper and electronic records. Moreover, the Enterprise Records and Information Management Physical Storage Standard was published on February 25, 2016. This standard specifies the requirements for the storage of physical records to insure that necessary controls are in place to prevent damage due to environmental hazards or natural disasters.</p> <p>Second, PG&E published Vital Records Management standard (TD-4017S),¹⁰⁵ which describes the requirements for creating and handling those records that are essential to PG&E’s ongoing gas operations and for complying with its legal or business obligations. It requires Gas Operations to create an inventory of vital records, which must be updated at least annually, as well as a plan to protect and ensure access to those records.</p> <p>PG&E sent copies of these record information management policies and procedures to SED during discovery and their quality, completeness, and usefulness was not raised by SED as an issue in this proceeding.¹⁰⁶</p>	<p><i>In Progress.</i> PG&E is implementing this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.</p>	<p>Duplicative of remedies already ordered in the Transmission Recordkeeping OII proceeding.</p>

¹⁰⁴ Ex. 5, Attachment W010 (Utility Standard TD-4016S, Rev. 1, Gas Operations Records and Information Management). This document was published on October 15, 2014. *Id.*

¹⁰⁵ *Id.*, Attachment W011 (Utility Standard TD-4017S, Rev. 0, Gas Operations Vital Records Management). This document was published on December 4, 2013. *Id.*

¹⁰⁶ Ex. 1 at 84 attch. B (PWA Report) (describing PG&E’s Response to SED Data Request No. 2); *see also* Ex. 4 at 2-5:18 to 2-6:2 (PG&E Reply Testimony, Singh).

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Proposed Remedial Measure	PG&E's Response	Status⁹⁵	Proposed Ruling
D.7. <u>Iron Mountain Records:</u> Develop and execute plan for evaluating historical Gas Paper Records currently at Iron Mountain (post Cow-palace review effort in 2011) and determine what should be scanned, and appropriate disposition.	Iron Mountain records are not an issue in this proceeding.	<i>In Progress.</i> PG&E is implementing this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.	Duplicative of remedies already ordered in the Transmission Recordkeeping OII proceeding.
D.8. <u>Alignment With Corporate Records Management Policy and Refresh Schedule:</u> Establish process and protocol to align with Corporate Records Management Policy, and refresh Retention Schedule, Gas RIM standards, Gas guidelines and procedures, Gas process maps, and Gas data inventory based on a defined refresh schedule (Annual Review or other trigger such as a new Regulation).	PWA testified that any violations in this OII were not the result of defective procedures ¹⁰⁷ and alignment with Corporate Records Management Policy is not an issue in this proceeding.	<i>Completed.</i> PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.	Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.

¹⁰⁷ Ex. 1 at 1:22-23 (PWA Report).

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Proposed Remedial Measure	PG&E's Response	Status ⁹⁵	Proposed Ruling
<p>D.9. <u>Records and Information Inventory</u>: Create a gas records and information data inventory to identify and locate all (paper and electronic) Records and Information populations.</p>	<p>PG&E has already implemented this remedy for gas distribution records. In 2014, Gas Operations RIM published a revised Gas Operations Records Retention Schedule which was based on the gas records inventory. This inventory involved interviews with subject matter experts in each of the respective Gas Operations functional groups. The gas records inventory will be updated, as additional records are identified. An updated Records Retention Schedule was published in January 2016 as an attachment to the revised corporate standard, GOV-7101S. Gas Operations RIM is currently conducting the periodic review of the inventory, to include interviews with subject matter experts and the validation of inventory by supervisors and managers. The inventory certification of the updated inventory by directors and officers is scheduled for October 31, 2016.</p>	<p><i>Completed.</i> PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.</p>	<p>Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.</p>

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Proposed Remedial Measure	PG&E's Response	Status ⁹⁵	Proposed Ruling
<p>D.10. <u>Records in Unstructured Data Stores</u>: Identify Records in Unstructured data stores, such as Shared Drives and Intranet.</p>	<p>Unstructured data stores are not an issue in this proceeding.</p> <p>In any event, PG&E has already implemented measures to address unstructured data stores for its distribution records. Specifically, as detailed in Chapter 2 of PG&E's Reply Testimony, in 2015, PG&E's Gas Operations organization initiated a multi-year effort to address the electronic records portion of the initiative, including the migration of certain electronic records from unstructured systems (such as SharePoint, share drives, and hard drives) to centralized structured databases (such as Documentum).¹⁰⁸</p> <p>Documentum is an electronic document management system that is being implemented to serve as PG&E's primary electronic records repository for unstructured data, such as word processor documents, PDFs, and images.¹⁰⁹</p> <p>Once fully integrated, Documentum will interface with GD GIS and SAP and PG&E personnel will be better able to electronically standardize the records management processes and access the associated records.</p>	<p><i>In Progress.</i> PG&E is already implementing the intent of this remedy.</p>	<p>Unnecessary.</p>
<p>D.11. <u>Migration From Discrete Storage Locations</u>: Develop a strategy and process to migrate active and historical electronic information from discrete storage locations (<i>i.e.</i>, shared drives, PCs, etc.) to a centralized repository (<i>i.e.</i>, Documentum).</p>	<p>Migration of electronic data in discrete storage locations are not an issue in this proceeding.</p> <p>In any event, PG&E has already implemented an initiative to migrate unstructured data to Documentum. <i>See</i> PG&E's Response to PwC Recommendation D.10, <i>supra</i> p. C-51.</p>	<p><i>See</i> PG&E's Response to D.10, <i>supra</i> p. C-51.</p>	<p>Unnecessary.</p>

¹⁰⁸ Ex. 4 at 2-6:8-14 (PG&E Reply Testimony, Singh).

¹⁰⁹ *Id.* at 2-15:1-6 (PG&E Reply Testimony, Singh).

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Proposed Remedial Measure	PG&E's Response	Status⁹⁵	Proposed Ruling
<p>D.12. <u>Compliance Review on RIM Program Components:</u> Perform Gas Operations Compliance review on RIM Program components, such as Corporate Records Management Policy, Retention Schedules, and other related RIM procedures.</p>	<p>While RIM Program components are not an issue in this proceeding, PG&E has made significant investment in its RIM program, as described in testimony.¹¹⁰</p> <p>Moreover, PG&E sent copies of its updated RIM policies, standards and procedures to SED during discovery and their quality, completeness and usefulness was not raised by SED as an issue in this proceeding.</p>	<p><i>In Progress.</i> PG&E is implementing this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.</p>	<p>Duplicative of remedies already ordered in the Transmission Recordkeeping OII proceeding.</p>
<p>D.13. <u>Interim Audit Plans:</u> Create interim Audit Plans (assess risk, define frequency, scope, type of audit) for Quality Assurance and Internal Audit, and define RIM controls for audit plans.</p>	<p>PG&E uses a robust system of internal auditing, which is directly overseen by senior management, and which includes audits of recordkeeping practices.¹¹¹ Internal Auditing group performs audits to evaluate the effectiveness of controls on new and existing business processes, which allows management to then address any control gaps and check whether the processes are being implemented effectively.¹¹² As a reflection of the value PG&E places on its internal audit process, a risk compliance committee comprised of senior management is responsible for ensuring that corrective actions are implemented following an internal audit or any other QM review.¹¹³</p> <p>Thus, PG&E's current internal audit program goes beyond this proposed remedy.</p>	<p><i>Completed.</i> PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. There were no incremental costs as PG&E already has an ongoing audit process.</p>	<p>Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.</p>

¹¹⁰ *Id.* at 2-7:4 to 2-8:25 (PG&E Reply Testimony, Singh).

¹¹¹ *Id.* at 3-23:3-20 (PG&E Reply Testimony, Higgins).

¹¹² *Id.* at 5-22:16-19 (PG&E Reply Testimony, Singh).

¹¹³ Ex. 1 at 76:4-6 (PWA Report); Ex. 4 at 1-8 (PG&E Reply Testimony, Howe); *id.* at 3-23:9-20 (PG&E Reply Testimony, Higgins).

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Proposed Remedial Measure	PG&E's Response	Status⁹⁵	Proposed Ruling
D.14. <u>Enhance Long Term Audit Plans:</u> Once the RIM program is stabilized, update and enhance long term Audit Plans (assess risk, define frequency, scope, type of audit) for Quality Assurance and Internal Audit, and define RIM controls for audit plans.	See PG&E's Response to PwC Recommendation D.13, <i>supra</i> p. C-52.	<i>In Progress.</i> See PG&E's Response to PwC Recommendation D.13, <i>supra</i> p. C-52.	Duplicative of remedies already ordered in the Transmission Recordkeeping OII proceeding.
D.15. <u>Review Gas Ops Business Processes:</u> Review the current list of Gas Operations business processes to validate and document a comprehensive list of all gas operational processes (that should follow the full information lifecycle).	Gas Ops business processes are not an issue in this proceeding.	<i>In Progress.</i> PG&E is implementing this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. There were no incremental costs as PG&E already has a list of processes and periodically updates them.	Duplicative of remedies already ordered in the Transmission Recordkeeping OII proceeding.
D.16. <u>Gas Business Process Maps:</u> Evaluate and refresh Gas business process maps for the newly defined/validated list of processes, instituting a rigorous protocol for standardization and approval by process owners.	Gas business process maps are not an issue in this proceeding.	<i>In Progress.</i> PG&E is implementing this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. See <i>supra</i> note 70.	Duplicative of remedies already ordered in the Transmission Recordkeeping OII proceeding.

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Proposed Remedial Measure	PG&E's Response	Status⁹⁵	Proposed Ruling
D. 17. <u>Revise Standards and Work Procedures</u> : Align and revise all Standards and Work Procedures to the updated list of all Gas Operations Processes.	PWA testified that any violations in this OII were not the result of defective procedures ¹¹⁴ and thus are not an issue in this proceeding. Gas business processes are also not an issue in this proceeding.	<i>In Progress.</i> PG&E is implementing this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.	Duplicative of remedies already ordered in the Transmission Recordkeeping OII proceeding.
D.18. <u>Log of Special Projects and Initiatives</u> : Develop and maintain comprehensive log of all Gas Operations “special projects” and initiatives to ensure any new Records or data stores that may be created as a part of the effort has appropriate RIM practices.	New records or data stores created as a result of special projects and initiatives are not an issue in this proceeding and PWA noted PG&E’s control processes associated with GD GIS implementation. ¹¹⁵ PG&E’s RIM team functions across Gas Operations to assure appropriate controls are established for gas distribution records.	<i>Completed.</i> PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.	Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.

¹¹⁴ Ex. 1 at 1:22-23 (PWA Report).

¹¹⁵ *See, e.g., id.* at 55:30 to 56:8, 58:1-10, 58:19-26 (PWA Report).

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Proposed Remedial Measure	PG&E's Response	Status⁹⁵	Proposed Ruling
D.19. <u>Challenges and Backlog of Gas Maps:</u> Address known challenges and backlog of Gas Maps.	PG&E already has a robust process to track the timely progress of distribution mapping updates and corrections. The Mapping Department utilizes SAP to track progress and monitor the status of mapping corrections with a target goal of completion within 30 days. ¹¹⁶ Mapping management meets monthly to discuss Gas Mapping Department performance based on a monthly "Placemat," a dashboard the Mapping Department generates each month that tracks various performance metrics of the team. ¹¹⁷	<u>Completed.</u> PG&E has already implemented a process for distribution activities that addresses the goal intended by the remedy.	Unnecessary.
D.20. <u>Review of RIM Standards:</u> Add RIM Program standards to the five year standards review process in Gas Operations.	PWA testified that any violations in this OII were not the result of defective procedures ¹¹⁸ and thus are not an issue in this proceeding. RIM standards are also not an issue in this proceeding.	<u>Completed.</u> PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. There were no incremental costs as PG&E already has a review process for its standards.	Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.

¹¹⁶ Ex. 4 at 4-11:29 to 4-12:3 (PG&E Reply Testimony, Trevino).

¹¹⁷ *Id.* at 4-3:8-12 & fig. 4-1 (PG&E Reply Testimony, Trevino).

¹¹⁸ Ex. 1 at 1:22-23 (PWA Report).

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Proposed Remedial Measure	PG&E's Response	Status⁹⁵	Proposed Ruling
D.21. <u>RIM Program Improvements</u> : Once RIM program and processes achieve stability, identify and develop continuous improvement activities for the Gas RIM Program.	PG&E has already committed to using the Information Governance Maturity Model for records management developed by ARMA International to design a Gas RIM program in accordance with the recordkeeping and information management guidance in PAS 55 and ISO 55001. ¹¹⁹ The Company has made significant improvements since the publication of the PwC report four years ago.	<i>In Progress</i> . PG&E is implementing this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.	Duplicative of remedies already ordered in the Transmission Recordkeeping OII proceeding.
E.1. <u>Data Cleansing Effort</u> : Conduct rigorous and thorough Data Cleansing effort prior to any consolidation or migration of electronic data into new or interim systems.	As discussed in PG&E's response to SED proposed remedy (a), PG&E undertook a number of initiatives to identify discrepancies and gaps in its distribution records during the migration to GD GIS. <i>See</i> PG&E's Response to SED Proposed Remedy (a), <i>supra</i> pp. C-5 to C-7.	<i>Completed</i> . PG&E is already implementing the intent of this remedy.	Unnecessary.
E.2. <u>Identify Data Gaps</u> : Identify potential data completeness gaps through results of Data Cleanse exercises.	<i>See</i> PG&E's Response to PwC Recommendation E.1, <i>supra</i> p. C-56.	<i>Completed</i> . PG&E is already implementing the intent of this remedy.	Unnecessary.

¹¹⁹ Ex. 4 at 2-8:1-4 (PG&E Reply Testimony, Singh).

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Proposed Remedial Measure	PG&E's Response	Status ⁹⁵	Proposed Ruling
<p>E.3. <u>Information for Future Processes</u>: As part of Business Requirements gathering efforts, evaluate what Information should be gathered to support future state Gas Operations processes and advancement of Integrity Management analysis.</p>	<p>While this is not an issue raised in this proceeding, PG&E already gathers information for future processes and integrity management analysis. As discussed in PG&E's Response to SED Proposed Remedy (a) and Adopted Transmission Recordkeeping OII Remedy 5, PG&E undertook an enormous effort to migrate its distribution records to GD GIS, SAP, and Documentum. It also implemented a number of initiatives using data analytics to improve the state of its records. <i>See</i> PG&E's Response to SED Proposed Remedy (a) and Adopted Transmission Recordkeeping OII Remedy 5, <i>supra</i> pp. C-5 to C-7, C-24 to C-25.</p>	<p><i>Completed.</i> PG&E is already implementing the intent of this remedy. Gas distribution has the desired analytic capabilities with the implementation of GD GIS, continued use of SAP, and growing use of Documentum.</p>	<p>Unnecessary.</p>
<p>E.4. <u>Capture Paper-Based Records and Documents Electronically</u>: Building on Records digitization efforts from the MAOP Validation project, continue to capture paper-based records and documents electronically.</p>	<p>This proposed remedy is not applicable to this proceeding. Moreover, PG&E is using digitized records in its distribution MAOP analysis.</p>	<p><i>Completed.</i> PG&E is already implementing the intent of this remedy. PG&E is already using digitized records to perform its distribution MAOP analysis.</p>	<p>Unnecessary.</p>
<p>E.5. <u>Stand-Alone Repositories</u>: Standardize the use of stand-alone repositories such as SharePoint and email so they can align and potentially integrate with RIM procedures going forward.</p>	<p>Stand-alone repositories are not an issue in this proceeding.</p>	<p><i>In Progress.</i> PG&E is implementing this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.</p>	<p>Duplicative of remedies already ordered in the Transmission Recordkeeping OII proceeding.</p>

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Proposed Remedial Measure	PG&E's Response	Status⁹⁵	Proposed Ruling
E.6. Email Storage: Create and execute process to transfer data captured in emails to appropriate permanent repositories and discourage the use of email as a data store/"personal electronic filing cabinet."	Email storage is not an issue in this proceeding.	<i>In Progress.</i> PG&E is implementing this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.	Duplicative of remedies already ordered in the Transmission Recordkeeping OII proceeding.
E.7. Shared Drives and Hard Drives: Identify and migrate official Records stored on network Shared Drives and local personal computer hard drives to a designated central repository (Documentum). Consider eliminating Shared Drives for some functions.	The use of shared drives and hard drives is not an issue in this proceeding.	<i>In Progress.</i> PG&E is implementing this remedy for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.	Duplicative of remedies already ordered in the Transmission Recordkeeping OII proceeding.
E.8. Off-line Data Stores: Identify, develop, and execute remediation plan for other electronic "off-line" data stores such as floppy/hard disks, CDs/DVDs, USB drives, external hard drives, etc.	Off-line data stores are not an issue in this proceeding.	<i>In Progress.</i> PG&E is implementing this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.	Duplicative of remedies already ordered in the Transmission Recordkeeping OII proceeding.

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Proposed Remedial Measure	PG&E's Response	Status ⁹⁵	Proposed Ruling
<p>E.9. <u>Detailed Business Requirements Gathering:</u> Enhance Detailed Business Requirements Gathering for Technology Systems. This should include specific discussions with various relevant workforce populations on: User Interface, Gas Processes Work Flows, Reporting/Metrics, Taxonomy, Metadata, Security Access, and Protection Model.</p>	<p>Business requirements gathering is not an issue in this proceeding.</p>	<p><u>Completed.</u> PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. There were no incremental costs to implement this remedy for distribution activities.</p>	<p>Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.</p>

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Proposed Remedial Measure	PG&E's Response	Status ⁹⁵	Proposed Ruling
<p>E.10. <u>Target Operating Model:</u> Develop a holistic Gas Operations, Business Applications “Target Operating Model” that includes all Gas (Distribution and Transmission) systems, Records, and data stores.</p>	<p>Gas Operations operating model is not an issue in this proceeding.</p> <p>Moreover, PG&E has already implemented a number of technologies that meet the intent of this proposed remedy. These platforms enable PG&E to implement best practices for standardizing recordkeeping practices and improving its asset data.</p> <p>These platforms include GD GIS, which provides spatial information about distribution assets and attributes of assets (<i>e.g.</i>, size, type, and location), along with references to work orders and gas service record numbers.¹²⁰</p> <p>SAP includes an asset management database that contains equipment records, maintenance history and plans, gas leak data, preventive and corrective notifications, scheduling and cost collecting orders, material requisitions, warehouse management, financials, and cost accounting, as well as an inventory of data and maintenance plans related to regulation, valves, corrosion, leak survey, and instrument calibration for the gas distribution system.¹²¹</p> <p>Documentum serves as PG&E's primary electronic records depository, and stores both record content and record metadata (<i>e.g.</i>, record creation date, author, editor, versions, format, and lifecycle status), with full-text search capabilities.¹²²</p>	<p><i>In Progress.</i> PG&E is already implementing the intent of this remedy.</p>	<p>Unnecessary.</p>

¹²⁰ *Id.* at 2-11:25-29 (PG&E Reply Testimony, Singh).

¹²¹ *Id.* at 2-14:9-20 (PG&E Reply Testimony, Singh); *id.* at 4-11:29 to 4-14:16 (PG&E Reply Testimony, Trevino).

¹²² *Id.* at 2-14:32 to 2-15:23 (PG&E Reply Testimony, Singh).

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Proposed Remedial Measure	PG&E's Response	Status⁹⁵	Proposed Ruling
<i>(continued)</i>	The three systems interface with each other to provide information necessary to manage assets in real-time for prompt decision making, and can provide advanced analytic capabilities to improve the accuracy of asset data. ¹²³		
E.11. <u>Data Entry Quality Control:</u> Ensure all system user interfaces in which new information or data points are entered, incorporate appropriate preventative and detective controls to help minimize data quality issues at point of entry.	PG&E's testimony describes data quality management in detail. For example, PG&E implemented the use of a mobile A Form, which includes many validation rules that allow the leak repair information to be captured completely and accurately as the leak is repaired in the field. ¹²⁴	<u>Completed.</u> PG&E has implemented the intent of this remedy for distribution activities.	Unnecessary.
E.12. <u>Intranet as Resource:</u> Leverage the PG&E Intranet Gas Operations page for a centralized, searchable, and easily navigable resource of all Gas Policies, Procedures, and Standards (including RIM-related).	Accessibility of Gas policies, procedures, and standards is not an issue in this proceeding.	<u>Completed.</u> PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. There were no incremental costs to implement this remedy for distribution activities.	Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.

¹²³ *Id.* at 2-15:24 to 2-16:17, 2-18:11-14 (PG&E Reply Testimony, Singh).

¹²⁴ *Id.* at 2-20:14-18 (PG&E Reply Testimony, Singh).

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Proposed Remedial Measure	PG&E's Response	Status⁹⁵	Proposed Ruling
E.13. <u>Legal Hold</u> : Develop and execute formal "Hold In Place" process for Documentum to facilitate preservation under Legal Holds. Ensure reporting/auditing of Holds In Place is also included.	Legal hold process is not an issue in this proceeding.	<i>In Progress.</i> PG&E is implementing this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. PG&E has identified and proposed for removal associated forecast costs in the appropriate rate setting proceedings. <i>See supra</i> note 70.	Duplicative of remedies already ordered in the Transmission Recordkeeping OII proceeding.
E.14. <u>Contract Management System Plug In/Interface to Documentum</u> : Consider a Contract Management System plug-in/interface to Documentum system to facilitate robust, consistent, and controlled Gas Contracting lifecycle process.	Contract management is not an issue in this proceeding.	<i>In Progress.</i> PG&E is implementing this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. There were no incremental costs to implement this remedy for distribution activities.	Duplicative of remedies already ordered in the Transmission Recordkeeping OII proceeding.
E.15. <u>Technology and Systems Landscape</u> : Reassess/re-examine the existing Technology and Systems landscape periodically to determine if Gas Operations needs are still being met in the future.	As discussed throughout PG&E's testimony, PG&E is continually evaluating its technology and systems to improve its gas distribution recordkeeping practices. In any event, technology and systems landscape is not an issue in this proceeding.	<i>Completed.</i> PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. There were no incremental costs to implement this remedy for distribution activities.	Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.

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Proposed Remedial Measure	PG&E's Response	Status ⁹⁵	Proposed Ruling
<p>E.16. <u>Gas IT Technical Support:</u> Create and implement a Gas IT technical support sub-group (via the phone help line) that can more specifically address Gas Operations systems issues.</p>	<p>IT technical support is not an issue in this proceeding.</p>	<p><u>Completed.</u> PG&E has already implemented this remedy, for both transmission and distribution activities, in response to the Transmission Recordkeeping OII proceeding. There were no incremental costs to implement this remedy for distribution activities.</p>	<p>Duplicative of remedies already ordered and implemented in the Transmission Recordkeeping OII proceeding.</p>